

PTR BALER AND COMPACTOR **COMPANY**

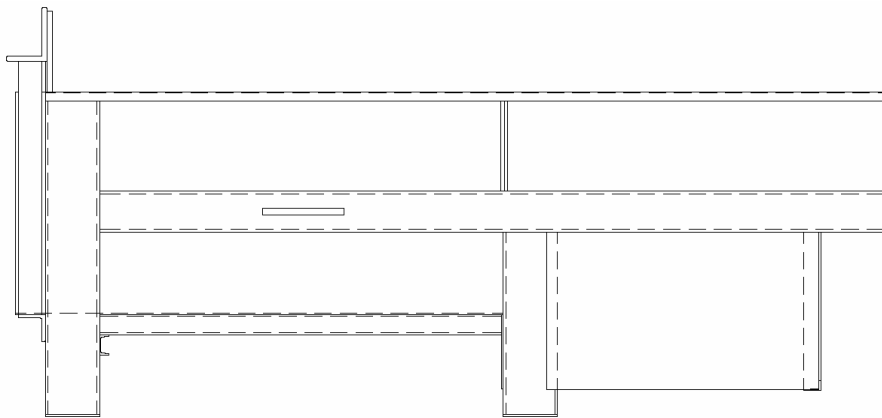
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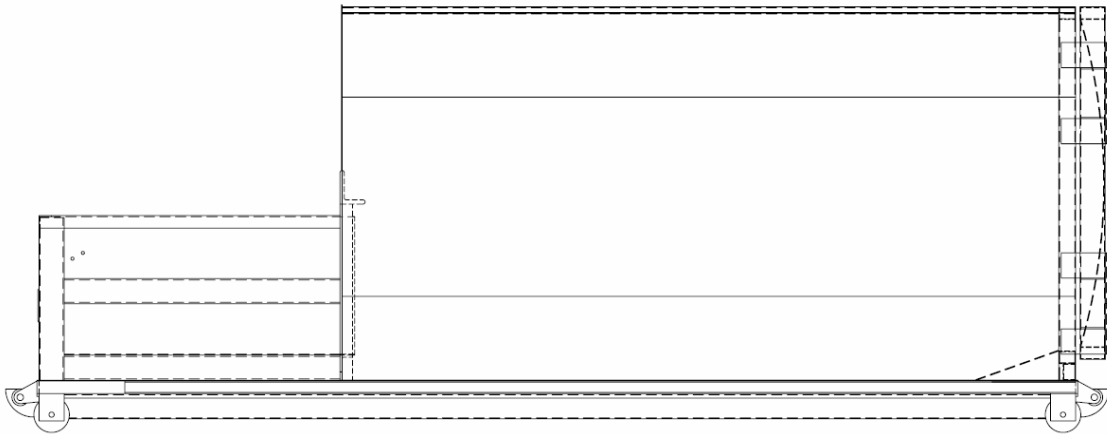
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HYDRAULIC COMPACTORS

ENGINEERED FOR SUPERIOR DURABILITY,
HIGHEST QUALITY AND MAXIMUM SAFETY



STATIONARY COMPACTOR



SELF-CONTAINED COMPACTOR

OUR EMPHASIS
IS ON SAFETY

MODEL# _____
SERIAL# _____

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INTRODUCTION

PTR Baler and Compactor's Hydraulic Stationary and Self-Contained Compactors are recognized in the industry as being of superior design and of a higher quality product.

PTR Baler and Compactor products are recognized by Underwriters Laboratory and carry the UL and CUL Seal of Approval.

To maintain this high level of quality, all units are inspected and factory tested to insure long lasting top performance in the field.

Many of the advanced design features on our compactors make operation easy without sacrificing safety.

At PTR Baler and Compactor, operator safety is our number one priority. We ask all operators to read and fully understand this manual and to view the operational video for your compactor.

Thank you for your patronage of PTR Baler and Compactor's hydraulic compactor products.

GENERAL

PTR Baler and Compactor's Stationary and Self-Contained Compactors are designed with everyone's safety in mind. However, as with most industrial equipment the ultimate responsibility for safety rests with management and the operators.

It is the operator's duty to be thoroughly familiar with this manual before operating this equipment.

An additional operator responsibility is to insure that the unit's operation is in accordance with safety requirements and codes, especially all applicable Occupational Safety and Health Act (OSHA) and American National Standard Institute (ANSI) regulations.

PTR Baler and Compactor Company strongly recommends that the current ANSI and OSHA standards be available to operators at all times.

This manual provides procedures and a parts list for PTR Baler and Compactor Co. Compactors. The compactor is easily installed and operated and requires a minimum of maintenance. In the event a problem occurs which cannot be remedied by reference to this manual, it is recommended that you contact your local distributor or service company for service.

Ease of installation and access are achieved by the simplicity of the components. Site preparation is minimal, although we do recommend that the equipment be installed on a concrete pad (3000 psi. Concrete, steel reinforced, 6" thick, usually 10' or 12' wide by 40' long.)

Included in this instruction manual is a simple trouble-shooting chart that enables an authorized serviceman to locate and repair most electrical and hydraulic problems.

Note:

The information contained herein is subject to change without notice.

We reserve the right to make changes, and or alterations to the equipment and information contained herein at any time.

Compactor Operational And Repair Safety Instructions

WARNING: DO NOT OPERATE COMPACTOR WITHOUT THOROUGH UNDERSTANDING OF INSTRUCTIONS.

DAILY: PERFORM SAFETY CHECK TO ENSURE INTERLOCK & SAFETY FUNCTIONS

Full compactor safety checklist is located in the manual

ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED TO OPERATE OR SERVICE THIS COMPACTOR

Keys to this machine should be removed between use to prevent unauthorized operation. Federal regulation prohibits operation of this machine by people under the age of 18.

DO NOT ATTEMPT TO DEFEAT THE PURPOSE OF ANY SAFETY SWITCH!

Immediately replace any switches that are found not to be in proper working condition

DO NOT OPERATE COMPACTOR UNLESS ALL GUARDS ARE COMPLETELY IN PLACE

KEEP CLEAR WHILE CONTAINER IS BEING LIFTED



LOCK-OUT / TAG-OUT PROCEDURE MUST BE FOLLOWED BEFORE THE COMPACTOR OR CONTAINER CAN BE ENTERED OR SERVICED & BEFORE DIS-ENGAGING CONTAINER BINDERS

The compactor should not be restarted until all workers have exited and moved out of the way of all moving components.

Lock-out procedure is listed on the next page.



ONLY AUTHORIZED PERSONNEL SHOULD BE ALLOWED TO OPEN THE PANEL BOX

This compactor operates with high voltage, and should not be serviced by people who are not certified to do so.

Lock-out procedure must be used before opening panel box.



BEWARE OF MOVING COMPONENTS

The feed doors should not be opened at anytime while the ram is advancing under pressure. The user should stand away from compactor while in operation, and should never reach into the machine in any way.



DO NOT CLIMB THE COMPACTOR OR CONTAINER UNDER ANY CIRCUMSTANCE

User should also be familiar with applicable safety codes, including those issued by ANSI, OSHA, UL, NFPA, etc. It is recommended that the owner have a copy of ANSI Z245.2 available

Compactors that are found not to be operating safely, must be **IMMEDIATELY** reported to **PTR Baler and Compactor**

AT: (800) 523-3654

LOCK-OUT PROCEDURE IS LOCATED ON THE FOLLOWING PAGE



LOCKOUT PROCEDURE DEVELOPMENT INFORMATION

OSHA (occupational health and safety administration) 29 CFR (code of federal regulations) 1910.147 requires that each company develop, maintain, and follow a lock-out / tag-out procedure for employees and equipment. This procedure must be followed prior to performing maintenance or service work or entering any hazard area that may exist. The following is merely a guideline for creating a company / equipment specific lock-out / tag-out procedure and is not intended to supplant either the specific company procedure or OSHA regulation 29 CFR 1910.147 and 29 CFR 1910.147 appendix A

1. All affected employees shall be notified that equipment is being shut down and locked out prior to performing service or maintenance.
2. The equipment, if operating, shall be shut down by normal means and the energy-isolating device shall be de-activated to isolate the equipment from the energy source. Isolation shall include:

 - a) removing the key from the key-lock ON-OFF switch
 - b) turning off disconnect and affixing a lock, securing disconnect in the off position
 - c) affixing a tag to the lock, clearly identifying the individual who locked out the machine, warn against hazardous conditions, and actions required to avoid hazardous conditions, such as, "Do not operate"

3. Equipment isolation shall be verified by activating the normal operating controls, ensuring first that no personnel are exposed (insure operating controls are returned to the neutral or "off" position after verifying the isolation of the equipment).
4. When the servicing or maintenance is completed, only after checking that the equipment is ready to operate, ensuring that the surrounding area is clear, that employees are safely positioned or removed from the area, and verifying that controls are in neutral, shall the lockout devices be removed and the equipment be re-energized. Tags and locks must be removed by the same person who attached them.
5. Affected employees shall be notified that the servicing or maintenance has been completed and the equipment is ready for use.
 - PTR Baler and Compactor strongly recommends that current and applicable ANSI and OSHA standards be made available to operators at all times. At time of writing the applicable standard is OSHA Standard 29 CFR 1910.147 / 1910.147 appendix A. Also reference ANSI Z245.2, others may also apply.

TO BE COMPLETED BY INSTALLER

Please complete and mail/fax this form along with the completed
Compactor Safety Checklist, immediately after installation

PTR Baler and Compactor

Compactor Installation Information

Compactor Information:

| | |
|-------------------------------|------------------|
| Model No: _____ | Serial No: _____ |
| Installed By: _____ | Date: _____ |
| Signature of Installer: _____ | |

Customer Information:

Customer and Store No: _____

Address: _____

Phone No: _____

Operation and Maintenance Manual Received By:

Name & Signature: _____

Individuals Instructed In Safety Procedures And Operation Of Machine:

Names & Signatures: _____

Keys Received By:

Name & Signature: _____

Operation Video Tape Received By:

Title, Name & Signature: _____

SEE ALSO: COMPACTOR SAFETY CHECKLIST LOCATED IN MANUAL

SAFETY INSTRUCTIONS

PTR Baler and Compactor Company strongly recommends that all personnel operating our hydraulic compactors be required to read this manual and view video very carefully. Training records must be kept.

Operators who are illiterate or non-English speaking should have the manual read to them and fully understand all of the information.

Failure to follow all prescribed safety instructions may result in Injury or Death.

WARNING

This unit is to be operated by authorized personnel only. By law, no one under 18 years of age is permitted to operate this equipment.

1. Before maintenance or service work is started, the lockout procedure must be initiated.
2. This unit is equipped with a key operated power ON/OFF system and the keys should be in the possession of authorized personnel only and not left in the switch.
3. Caution! – “ CONFINED SPACE” – Use Lockout / Tag out Procedure Prior to entry into the Chute, Doghouse, Hopper, and Cylinder area of the unit.
4. Operator shall be certain that all individuals are clear of the point-of-operation before activating the controls.
5. The equipment should never be operated unless all safety features are in working order. ***Do not defeat the purpose of any safety device.***

In Case of an Emergency

1. ***Push Red Emergency Stop button.***
2. Turn power key to **OFF** position and remove key.
3. Pull wall safety disconnect switch handle to end all electrical power to equipment.
4. Follow : LOCK OUT TAG OUT PROCEDURE. ~ See page 31

Compaction Equipment

Reference Excerpts from American National Standard Z245.2-2004

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7 Operational requirements

7.1 Owner/employer responsibilities for stationary compactors.

The owner/employer shall provide properly maintained stationary compactors that meet all applicable regulatory safety requirements and the requirements of this standard, and shall be responsible for all of the following:

- a) Ensuring that the installation of the stationary compactor conforms to local codes, ordinances, and manufacturer's recommendations. If installing into a system, examine prevailing safety standards of associated equipment;
- b) Providing to employees instruction and training in safe work methods before assigning them to operate, clean, service, maintain, modify, or repair the stationary compactor. Such instruction and training shall include procedures provided by the manufacturer. The employer will maintain records as to the names of employees and the dates of training;
- c) Providing instructions for addressing abnormal situations (e.g., bridging of the loading chamber or feeding chute, jam of materials);
- d) Assigning only trained employees to work on (which includes operating, loading, cleaning, servicing, maintaining, or repairing) the stationary compactor;
- e) Monitoring the employee's operation of the stationary compactor and taking appropriate action to ensure proper use, including adherence to safe practices and the employee requirements of this standard and monitoring the employee's operation of stationary compactors and taking appropriate action to ensure proper use of equipment, including adherence to safe practice;
- f) Repairing, prior to placing the stationary compactor into service, any mechanical malfunctions or breakdowns that affect the safe operations of the stationary compactor;
- g) Establishing and following a program of periodic and regular inspections of all stationary compactors to ensure that all parts, component equipment, and safeguards are in safe operating condition, and adjusted, in accordance with the manufacturer's recommended procedures. This shall include keeping all malfunction reports and records of inspections and maintenance work performed;
- h) Implementing a program for the maintenance of the stationary compactor which will incorporate the following elements:
 - 1) Requirements for trained, competent maintenance employees or contractors to perform inspection and repair work;
 - 2) Providing for the cleaning, inspection and repair of the stationary compactor in accordance with the manufacturer's recommendations, including periodic maintenance;
 - 3) Ensuring that all required safety features are operational and functioning, and repairing, prior to placing into service, any reported malfunction or defect that affects the safe operation of the stationary compactor; and
 - 4) Ensuring that all caution, warning and danger markings required by 5.13 are installed and legible, or are replaced if damaged, defaced or missing.
- i) Utilizing the manufacturer's recommended procedures for the control of hazardous energy sources (lockout/tagout) in a program complying with Part 1910.147 of Title 29 of the *Code of Federal Regulations* (OSHA) (see 7.3);
- j) Utilizing the manufacturer's recommended procedures for access control for permit-required confined spaces as part of the employer's program (see 7.4);
- k) Repairing, prior to placing the stationary compactor into service, any mechanical malfunctions or breakdowns that affect the safe operations of the stationary compactor;

Compaction Equipment (Continued)

Reference Excerpts from American National Standard Z245.2-2004

- l) Protecting any person by one of the methods in 5.9.1, or by other means as effective as those means of protection.
- m) For stationary compactors fed by means of a loading pit conveyor, reciprocating floor, or push pit that is flush with or below the facility floor, providing:
 - 1) Protection for employees by means of:
 - i) Limiting access within 6 feet (183 cm) of the edge of the pit to authorized employees;
 - ii) Training authorized employees to recognize and avoid the hazards associated with the pit area;
 - iii) Requiring that others whose employees use the pit area provide assurance of such training; and
 - iv) Limiting access by unauthorized persons by installing signs, such as:
"RESTRICTED AREA — AUTHORIZED EMPLOYEES ONLY"
 - 2) Providing a device to the extent practicable, which prevents trucks or other motor vehicles that unload directly into the loading pit from rolling into the pit;
- n) When stationary compactors equipped with automatic start/cycling controls are provided, allowing their use only in locations where a startup alarm is utilized or it is demonstrated that automatic starting does not result in a risk of injury to persons;
- o) Providing guard railings for dock ramps that meet U.S. Occupational Safety and Health Administration requirements. These shall be located around the loading chamber opening if walk-on ramps are used to deposit refuse into the loading chamber. Guard railings and toe boards shall be provided on the sides of docks and ramps;
- p) Providing for an adequate work area around the stationary compactor for safe maintenance, servicing, and cleaning procedures;
- q) Keeping all surrounding walking areas and floors free from obstructions, and accumulations of waste matter, grease, oil, and water;
- r) Maintaining records or employee reports of malfunctions;
- s) Specifically inspecting safety interlocks, switches, and other protective devices to ensure that these devices are not disabled or bypassed, and not to permit the stationary compactor to be operated unless these devices are fully functional. These inspections shall be in accordance with g);
- t) Ensuring that containers supplied are capable of withstanding the maximum forces generated by the compacting system;
- u) Ensuring that loaders are aware of hazards and safety requirements;
- v) Ensuring that only authorized employees (18 years old or older) operate, inspect, or maintain stationary compactors;
- w) Ensuring that only authorized employees (16 years old or older) load, but do not operate stationary compactors; and
- x) Incorporating stationary compactors into the employer's safety program (see Section 8).

7.2 Operator and employee responsibilities.

Operators who work on and around the stationary compactor shall be responsible for the items listed below:

- a) Using all applicable safety features provided on the stationary compactor;
- b) Using the stationary compactor only after receiving instruction;

Compaction Equipment (Continued)

Reference Excerpts from American National Standard Z245.2-2004

- c) Reporting any damage to, or malfunction of, the stationary compactor by submitting a report to the employer or responsible authority when the damage or malfunction occurs;
- d) Ensuring that access doors and service opening covers are in place, secure, and/or locked before operations begin;
- e) Ensuring that the area of operation around container/cart lifting systems and the container will be clear of persons during all phases of the lifting operation prior to energizing the dumping system;
- f) Ensuring that all persons are clear of the stationary compactor point of operation before actuating any compaction cycle controls or container/cart lifting system controls and being prepared to stop the compaction cycle or container dumping operation if necessary;
- g) Ensuring that all persons are clear of the tailgate (on compactor-container combinations so equipped) before the tailgate is opened or shut. The operator shall warn all persons not to cross behind or under an open tailgate;
- h) Using the stationary compactor in accordance the manufacturer's instructions, including ensuring the proper position of all locks, doors, guards, etc.;
- i) Ensuring that no one disables or bypasses safety interlocks, switches, or other protective devices and that the stationary compactor is not operated unless these devices are fully functional;
- j) Locking out the unit when inspecting malfunctions, jams, or other problems arising from daily operations; servicing; or performing maintenance (except maintenance testing). The affected employee shall identify the type and magnitude of the energy that the stationary compactor uses, shall understand the hazards, and know the methods to control the energy (see 7.3);
- k) Coupling and securing a compatible container to a compactor frame as specified by the compactor and container manufacturer(s);
- l) Operating, inspecting, and maintaining the stationary compactor only if 18 years old or older and after being properly instructed and trained; and
- m) Loading, but not operating, the stationary compactor only if 16 years old or older.

7.3 Procedures for the control of hazardous energy sources (lockout/tagout)

7.3.1 The owner/employer shall have a hazardous energy control (lockout/tagout) procedure to follow when performing servicing and maintenance on stationary compactors where the unexpected energization or start up of equipment, or release of stored energy could cause injury to employees.

7.3.2 The owner/employer shall utilize the instructions provided by the manufacturer for the control of hazardous energy sources. The lockout/tagout procedure shall isolate and render safe all energy sources, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other potential sources of energy (e.g., gravity, kinetic, etc.). It shall be used to ensure that the compactor is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the compactor or release of stored energy could cause injury.

Compaction Equipment (Continued)

Reference Excerpts from American National Standard Z245.2-2004

7.3.3 The lockout/tagout procedure shall include but is not limited to the following:

- a) Shutting down all power sources;
- b) Removing keys or other devices that enable the stationary compactor;
- c) Installing a tag on an appropriate location, using a non-reusable fastener, or installing a similar warning device;
- d) Placing operating components in such a position so as not to be subject to possible free fall and/or installation of additional blocking devices to prevent such free fall of any raised or elevated component; and
- e) Relieving stored hydraulic or pneumatic pressure, after blocking devices are installed, if maintenance is to be done to the hydraulic or pneumatic system.

7.3.4 The procedure shall address the following:

a) Sequence of lockout for the compactor:

- 1) Notify all affected employees that servicing or maintenance is required on a compactor and that the compactor must be shut down and locked out to perform the servicing or maintenance.
- 2) The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the compactor utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
- 3) If the compactor is operating, it must be shut down by the normal stopping procedure (depress stop button, open switch, close valve, etc.).
- 4) De-activate the energy isolating device(s) so that compactor is isolated from the energy source(s).
- 5) Lock out the energy isolating device(s) with assigned individual lock(s).
- 6) Stored or residual energy must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
- 7) Ensure that the compactor is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Caution: Return operating control(s) to neutral or “off” position only after verifying the isolation of the equipment.

NOTE: The machine or equipment is now locked out.

b) Restoring the compactor to service. When the servicing or maintenance is completed and the compactor is ready to return to normal operating condition, the following steps shall be taken:

- 1) Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
- 2) Check the work area to ensure that all employees have been safely positioned or removed from the area.
- 3) Verify that the controls are in neutral.
- 4) Remove the lockout devices and reenergize the machine or equipment.

NOTE: The removal of some forms of blocking may require re-energizing of the machine before safe removal.

- 5) Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

Compaction Equipment (Continued)

Reference Excerpts from American National Standard Z245.2-2004

7.4 Procedures for work in confined spaces

7.4.1 The owner/employer shall have a written procedure for work in confined spaces meeting the criteria of "permit required confined spaces," such as integrated power units. The procedure shall utilize the manufacturer's instructions for the hazardous energy control (lockout/tagout) procedure which shall isolate and render safe energy sources, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other potential sources of energy (e.g., gravity, kinetic, etc.), which may create a hazard during entry into each of those confined spaces.

- a) These instructions shall include the requirement to affix a sign to the compactor, at or near the entrances to those confined spaces for which hazardous energy control procedures are provided, such as, "**Warning — Follow lockout/tagout procedures.**"
- b) These instructions shall include the requirement to affix a sign to the stationary compactor, at or near the entrances to those confined spaces for which hazardous energy control procedures are provided, such as, "**Danger — Confined Space.**"

8 Safety and training program

8.1 General

8.1.1 Employers shall evaluate and manage safety issues related to the operation of stationary compaction equipment as part of their safety program.

8.2 Safety program

8.2.1 The employer's program shall include at a minimum the following elements:

- a) A hazard assessment in which the employer conducts a review of the various types of stationary compaction equipment that the employer utilizes and the hazards associated with them and, review and assess the capabilities, qualifications and training of any person who may potentially encounter these hazards.
- b) An evaluation of the means and methods of controlling the hazards identified in the hazard assessment, including information such as industry and regulatory requirements; instructions for the operation, inspection, and maintenance of stationary compactors, and other information appropriate to the hazards that are identified
- c) A written program, based upon the hazard assessment and evaluation, to include procedures for the operation, inspection, and maintenance of stationary compactors, prohibited practices, record keeping, training requirements, and normative references to documents, such as operating manuals, that are relied upon and may be required as part of that program;
- d) A program, conforming to 8.2, for the implementation of the written program; and
- e) Periodic review and program revisions as necessary to ensure the effectiveness of the safety program.

8.3 General training

8.3.1 Employers shall ensure all employees, including supervisors, contract laborers, and all other persons engaged in the operation, cleaning, maintenance, service or repair of stationary compacting equipment are properly trained appropriate for their assigned jobs and tasks. Contractors who may be engaged to operate or maintain the employer's stationary compactors shall be advised of the unique hazards related to the equipment that may affect the activities in which the contractor's employees will engage.

Compaction Equipment (Continued)

Reference Excerpts from American National Standard Z245.2-2004

8.3.2 Training frequency

8.3.2.1 Training shall be provided upon initial assignment to a job or task, with periodic refresher training to maintain the required level of competence. Retraining shall be provided for employees whenever their job assignments change, or an equipment change occurs that presents a new hazard. Additional retraining shall be provided whenever the employer has reason to believe, or periodic inspections reveal, that employee deviations from procedures have occurred, or inadequacies in the employee's knowledge of procedures become evident.

8.3.3 Instructional information

8.3.3.1 Employers are required to refer employees to, and have readily available, the manufacturer's instructions to ensure correct operating and maintenance procedures and work practices are understood and followed. Employers are required to ensure employees possess knowledge and skills to safely operate the stationary compactor.

8.3.4 Contract labor

8.3.4.1 Employers shall ensure for each job or task performed that training is provided either by the contract laborer's parent employer or by the employer.

8.3.5 Training records

8.3.5.1 Employers are required to maintain training records to include the date(s) of the training and the type of training received. Records are required to be maintained as required by applicable regulations. Contractors and contract laborers are required to provide the employer with appropriate training records upon demand.

8.3.6 Equipment-specific training

8.3.6.1 Training shall be tailored for individual operations and the type of equipment utilized including detailed, equipment-specific training for machine operators, as well as maintenance personnel and supervisors who must operate equipment as part of their job duties. Training shall include practical demonstration of equipment operation knowledge and skills by the employee, as appropriate to the requirements of the employee's job duties.

8.4 Training requirements

8.4.1 Training is required to include at a minimum:

- a) The necessary training as identified in the hazard assessment [see 8.2.1 a)];
- b) The training required by laws and regulations, such as those of federal and state Occupational Safety and Health Administrations, the Departments of Transportation, and other applicable regulatory agencies; and
- c) Operational instruction on each specific type of equipment used by the employee, including the instructions provided with the equipment.

TROUBLE SHOOTING GUIDE **WILL NOT OPERATE**

| <u>POSSIBLE CAUSE</u> | | <u>POSSIBLE REMEDY</u> | |
|------------------------------|------------------------|-------------------------------|---|
| A. | No Power | 1. | Check main power source |
| | | 2. | Check if control power is on |
| | | 3. | Reset overloads |
| | | 4. | Check motor starter contacts for extreme wear |
| B. | Interlock Switch | 1. | Switch malfunction |
| | | 2. | Switch needs adjustment |
| | | 3. | Door not closed properly |
| C. | Motor Overload Tripped | 1. | Reset overload on motor starter |
| | | 2. | Check current load (Amps) |
| D. | Blown Fuses | 1. | Replace fuses |
| E. | Electrical Malfunction | 1. | Perform electrical system continuity check |

TROUBLE SHOOTING GUIDE (Continued)
RAM WILL NOT MOVE

| <u>POSSIBLE CAUSE</u> | <u>POSSIBLE REMEDY</u> |
|----------------------------------|--|
| A. Door Security Switch | 1. Door not closed properly 2. Interlock switch malfunction 3. Adjust interlock switch |
| B. Oil Level Low | 1. Check oil level gauge on reservoir with ram up. Add oil if necessary (Fill to top of gauge glass) |
| C. Directional Valve Malfunction | 1. Check valve solenoid 2. Push in manual override, pin is in center of solenoid |
| D. Incorrect Pump Rotation | 1. Check fan rotation on motor (Fan should run clockwise) |
| E. Electrical Malfunction | 1. Perform electrical system continuity check |
| F. Material Jamming Ram | 1. Remove all jamming material from ram |
| G. Relief Valve | 1. Check setting 2. Replace valve |
| H. Pump Not Building Pressure | 1. Check for loose intake fittings 2. Check for proper rotation 3. Replace pump |

TROUBLE SHOOTING GUIDE (Continued)
STATIONARY & SELF-CONTAINED COMPACTORS
RAM WILL NOT MOVE

| <u>POSSIBLE CAUSE</u> | | <u>POSSIBLE REMEDY</u> | |
|------------------------------|----------------------------------|-------------------------------|--|
| I. | Hydraulic System Pressure is Low | 1. | Check system pressure |
| | | 2. | Check relief valve for malfunction |
| | | 3. | Worn pump |
| | | 4. | Check for loose intake fittings |
| J. | Pressure Switch | 1. | Improper pressure setting |
| | | 2. | Bad electrical contact |
| K. | Cylinder | 1. | Check for internal/external cylinder leakage |
| L. | Solenoid | 1. | Check for shifting of solenoid (check light) |

HYDRAULIC PRESSURE NOT OBTAINABLE

- A. Worn Pump
- B. Cylinder Bypass
- C. Relief Valve Malfunction
- D. Improper Pressure Setup
- E. Loose Fitting

TROUBLE SHOOTING GUIDE (Continued)

UNIT IS NOISY

| <u>POSSIBLE CAUSE</u> | <u>POSSIBLE REMEDY</u> |
|-------------------------------|--|
| A. Ram Rubbing | 1. Cylinder or ram may have material caught 2. Cylinder pin may need grease |
| B. Noise at Directional Valve | 1. Directional valve worn 2. Check for broken springs inside valve |
| C. Fan Hitting Shroud | 1. Remove shroud & align fan on shaft - Tighten 2. Realign shroud & tighten shroud bolts |
| . | |

PUMP NOISE

| <u>POSSIBLE CAUSE</u> | <u>POSSIBLE REMEDY</u> |
|------------------------------|---|
| A. Oil reservoir level low | 1. Check oil level gauge on reservoir (add oil if necessary) |
| B. Worn Pump | 1. Check Hydraulic system pressure |
| C. Restricted Inlet Strainer | 1. Replace strainer |
| D. Air leakage in Oil | 1. Check for foamy hydraulic fluid in reservoir oil level gauge |

ELECTRICAL INFORMATION

The unit “as shipped” is pre-wired to a specific voltage, as shown on the cover of its’ control panel. The compactor, power unit, and controls may be installed either indoors or outdoors.

CAUTION

If your power supply voltage does not agree with the voltage stated on the Compactor control panel cover, **DO NOT CONNECT THEM**; damage may occur. Have an authorized electrician reset the unit to match your power supply voltage. By “code”, the control panel wire harness must be connected to a properly sized fused disconnect switch. The disconnect switch should be “time delay fuse type” and must be located less than 15 feet and adjacent to the compactor while always within clear view of its operator.

MINIMUM SIZING REQUIRED

* “Wire size” denotes wire to be used from power supply to disconnect switch, use heavier wire if distance is more than 25 feet.

CONVERSION VOLTAGE: In order to convert the compactor from high to low voltage, or vice versa, the following components must be changed: *Motor* connection as indicated by diagram on motor. *Transformer* connection as indicated by diagram on transformer. Overload size as indicated by voltage requirements.

IMPORTANT MOTOR ROTATION

When power has been properly connected, press the START button momentarily and observe the direction of the rotation of the motor. Look at the motor fan, proper rotation is clockwise. (If fan rotation is not clockwise, interchange any two of the three power conductors). This should correct the rotation.

CHECK OPERATION

Check by following the operating instructions listed on the cover plate of the unit’s control panel.

ELECTRICAL INFORMATION

GROUNDING INSTRUCTIONS

The compactor must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the compactor. A qualified electrician should be consulted if there is any doubt as to whether an outlet box or the machine is properly grounded.

| 3 HP MOTOR, 3 PHASE, 60 CYCLE | | | | |
|---------------------------------------|---------------|------------------|------------------|--------------------------|
| Voltage | F.L.A. | Type Fuse | Wire Size | Disconnect Switch |
| 200V-208V | 10 amp | Time Delay | 14 | 30 amp |
| 220V-230V | 9 amp | Time Delay | 14 | 30 amp |
| 440V-460V | 5 amp | Time Delay | 14 | 20 amp |
| 550V-575V | 4 amp | Time Delay | 14 | 20 amp |
| 5 HP MOTOR, 3 PHASE, 60 CYCLE | | | | |
| 200V-208V | 16 amp | Time Delay | 12 | 30 amp |
| 220V-230V | 14 amp | Time Delay | 12 | 30 amp |
| 440V-460V | 7 amp | Time Delay | 14 | 30 amp |
| 550V-575V | 6 amp | Time Delay | 14 | 30 amp |
| 10 HP MOTOR, 3 PHASE, 60 CYCLE | | | | |
| 200V-208V | 29 amp | Time Delay | 8 | 60 amp |
| 220V-230V | 26 amp | Time Delay | 8 | 60 amp |
| 440V-460V | 14 amp | Time Delay | 12 | 30 amp |
| 550V-575V | 11 amp | Time Delay | 12 | 30 amp |
| 15 HP MOTOR, 3 PHASE, 60 CYCLE | | | | |
| 200V-208V | 43 amp | Time Delay | 6 | 60 amp |
| 220V-230V | 39 amp | Time Delay | 6 | 60 amp |
| 440V-460V | 20 amp | Time Delay | 8 | 60 amp |
| 550V-575V | 16 amp | Time Delay | 10 | 30 amp |
| 20 HP MOTOR, 3 PHASE, 60 CYCLE | | | | |
| 200V-208V | 57 amp | Time Delay | 4 | 100 amp |
| 220V-230V | 51 amp | Time Delay | 4 | 100 amp |
| 440V-460V | 30 amp | Time Delay | 8 | 60 amp |
| 550V-575V | 21 amp | Time Delay | 8 | 60 amp |

PTR BALER AND COMPACTOR CO.

FOR SERVICE
1-215-533-5100

PTR BALER AND COMPACTOR CO.

2207 E.ONTARIO AVE.
PHILA., PA 19134

FOR SERVICE
1-800-523-3554

| MODEL | HP | F.L.A. @ VOLTAGE 3- ϕ 60Hz | | | | STARTER | OVERLOAD | OVERLOAD SETTING | | | |
|-------|----|---------------------------------|-----|-----|-----|-------------|---------------|------------------|-----|-----|-----|
| | | 208 | 230 | 460 | 575 | | | 208 | 230 | 460 | 575 |
| | 20 | 56 | 50 | | | CGC-75A-120 | CGE-80-2S-80 | 56 | 50 | | |
| | | | | 25 | 20 | CGC-40A-120 | CGE-40-2P-40A | | | 25 | 20 |
| | 15 | 42 | 38 | | | CGC-75A-120 | CGE-80-2S-80 | 42 | 38 | | |
| | | | | 18 | 15 | CGC-40A-120 | CGE-40-2P-40A | | | 18 | 15 |
| | 10 | 28 | 25 | | | CGC-40A-120 | CGE-40-2P-40A | 28 | 25 | | |
| | | | | 13 | 10 | CGC-40A-120 | CGE-40-2P-40A | | | 13 | 12 |
| | 5 | 15 | 13 | | | CGC-40A-120 | CGE-40-2P-40A | 16 | 14 | | |
| | | | | 6.5 | 5.3 | CGC-22A-120 | CGE-40-2P-20A | | | 7.5 | 6.5 |
| | 3 | 9 | 8 | | | CGC-22A-120 | CGE-40-2P-20A | 9 | 8 | | |
| | | | | 4 | 3.3 | CGC-22A-120 | CGE-40-2P-20A | | | 4 | 3.3 |

| MODEL | HP | VOLTAGE | PHASE | FREQUENCY | F.L.A. | STARTER | OVERLOAD | O.L. SETTING |
|-------|----|---------|--------|-----------|--------|---------|----------|--------------|
| | | V | ϕ | Hz | | | | |

ELECTRICAL CONNECTION REQUIREMENTS

ADDITIONAL CURRENT DRAW (MAXIMUM) DUE TO HEATER OPTION IF PRESENT:
 LOW VOLTAGE HEATER OPTION - 2.08 AMPS AT 240VAC.
 HIGH VOLTAGE HEATER OPTION - 1.04 AMPS AT 480VAC.

CONNECT TO CIRCUIT WITH DUAL ELEMENT TIME DELAY FUSES RATED TO AT LEAST
 125% OF THE MOTOR F.L.A. PLUS THE OPTIONAL HEATER LOAD AND NO MORE THAN 175%
 OF THE MOTOR F.L.A. PLUS THE OPTIONAL HEATER LOAD IF PRESENT.

SUPPLY WIRE AMPACITY FROM THE FUSES TO THE MACHINE CONNECTION POINT MUST BE
 AT LEAST THAT OF THE DUAL ELEMENT TIME DELAY FUSES PROTECTING THE WIRES.

MOTOR: _____ HP VOLTAGE: _____ VAC ϕ _____ HEATER: YES / NO

CONNECT TO CIRCUIT WITH DUAL ELEMENT TIME DELAY FUSES RATED: _____ AMP MAX.

USE SUPPLY WIRE WITH A MINIMUM AMPACITY OF AT LEAST: _____ AMP

SETTINGS

| COMPACTOR | BALER |
|----------------------|------------------|
| 70% _____ PSI | SHIFT _____ PSI |
| 80% _____ PSI | RELIEF _____ PSI |
| 90% _____ PSI | _____ |
| FULL _____ PSI | _____ |
| RELIEF _____ PSI | _____ |
| REV. TIMER _____ SEC | _____ |
| MULTI. _____ CYCLES | _____ |

SCHMATIC NUMBER: _____

PTR BALER AND COMPACTOR CO.

ELECTRICAL INFORMATION

| Motor Hp | Voltage 3-P VAC | Motor F.L.A. from NEC | Heater Yes/No | Use Time Delay Dual Element Fuses | | Minimum Circuit Ampacity |
|----------|-----------------|-----------------------|---------------|-----------------------------------|---------------------|--------------------------|
| | | | | Recommended Size (amps) | Maximum Size (amps) | |
| 3 Hp | 200-208 | 10.6 | No | 15 | 20 | 20 |
| 3 Hp | 200-208 | 10.6 | Yes | 15 | 20 | 20 |
| 3 Hp | 220-240 | 9.6 | No | 12 | 17.5 | 17.5 |
| 3 Hp | 220-240 | 9.6 | Yes | 15 | 17.5 | 17.5 |
| 3 Hp | 440-480 | 4.8 | No | 6 | 9 | 9 |
| 3 Hp | 440-480 | 4.8 | Yes | 7 | 9 | 9 |
| 3 Hp | 550-575 | 3.9 | No | 5 | 9 | 9 |
| 5 Hp | 200-208 | 16.7 | No | 25 | 30 | 30 |
| 5 Hp | 200-208 | 16.7 | Yes | 25 | 30 | 30 |
| 5 Hp | 220-240 | 15.2 | No | 20 | 30 | 30 |
| 5 Hp | 220-240 | 15.2 | Yes | 25 | 30 | 30 |
| 5 Hp | 440-480 | 7.6 | No | 10 | 15 | 15 |
| 5 Hp | 440-480 | 7.6 | Yes | 12 | 15 | 15 |
| 5 Hp | 550-575 | 6.1 | No | 8 | 12 | 12 |
| 10 Hp | 200-208 | 30.8 | No | 40 | 60 | 60 |
| 10 Hp | 200-208 | 30.8 | Yes | 40 | 60 | 60 |
| 10 Hp | 220-240 | 28 | No | 35 | 50 | 50 |
| 10 Hp | 220-240 | 28 | Yes | 40 | 50 | 50 |
| 10 Hp | 440-480 | 14 | No | 17.5 | 25 | 25 |
| 10 Hp | 440-480 | 14 | Yes | 20 | 25 | 25 |
| 10 Hp | 550-575 | 11 | No | 15 | 20 | 20 |
| 15 Hp | 200-208 | 46.2 | No | 60 | 60 | 60 |
| 15 Hp | 200-208 | 46.2 | Yes | 60 | 60 | 60 |
| 15 Hp | 220-240 | 42 | No | 60 | 60 | 60 |
| 15 Hp | 220-240 | 42 | Yes | 60 | 60 | 60 |
| 15 Hp | 440-480 | 21 | No | 30 | 40 | 40 |
| 15 Hp | 440-480 | 21 | Yes | 30 | 40 | 40 |
| 15 Hp | 550-575 | 17 | No | 25 | 30 | 30 |
| 20 Hp | 200-208 | 59.4 | No | 80 | 80 | 80 |
| 20 Hp | 200-208 | 59.4 | Yes | 80 | 80 | 80 |
| 20 Hp | 220-240 | 54 | No | 70 | 80 | 80 |
| 20 Hp | 220-240 | 54 | Yes | 70 | 80 | 80 |
| 20 Hp | 440-480 | 27 | No | 35 | 50 | 50 |
| 20 Hp | 440-480 | 27 | Yes | 35 | 50 | 50 |
| 20 Hp | 550-575 | 22 | No | 30 | 40 | 40 |

125% Motor F.L.A. plus optional heater current - minimum fuse size
 175% Motor F.L.A. plus optional heater current - maximum fuse size

Heater at 208V draws 1.80 amps
 Heater at 240V draws 2.08 amps
 Heater at 480V draws 1.04 amps

PTR BALER AND COMPACTOR CO.

SINGLE PHASE ELECTRICAL INFORMATION

| Motor Hp | Voltage 1-P VAC | Motor F.L.A. | Use Time Delay Dual Element Fuses | | Minimum Circuit Ampacity |
|----------|-----------------|--------------|-----------------------------------|---------------------|--------------------------|
| | | | Recommended Size (amps) | Maximum Size (amps) | |
| 1 1/2 Hp | 115 | 20.0 | 25 | 35 | 35 |
| 3 Hp | 220 | 17.0 | 25 | 30 | 30 |
| 5 Hp | 220 | 28.0 | 35 | 50 | 50 |
| 10 Hp | 220 | 50.0 | 70 | 80 | 80 |

| HP | F.L.A. @ VOLTAGE | | STARTER | OVERLOAD | OVERLOAD SETTING | |
|-----|------------------|-----|-------------|---------------|------------------|-----|
| | 115 | 220 | | | 115 | 220 |
| 10 | | 50 | CGC-75A-120 | CGE-80-2S-80 | | 50 |
| 5 | | 28 | CGC-40A-120 | CGE-40-2P-40A | | 28 |
| 3 | | 17 | CGC-22A-120 | CGE-40-2P-20A | | 17 |
| 1.5 | 20 | | CGC-22A-120 | CGE-40-2P-20A | 20 | |

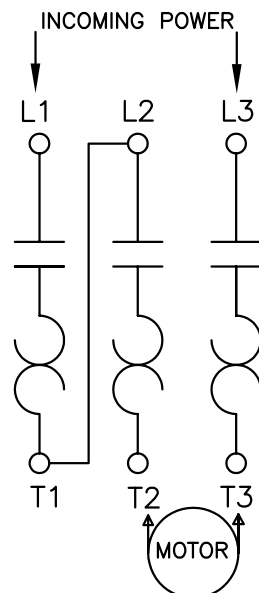
minimum fuse size:

125% Motor F.L.A. plus optional heater current

maximum fuse size:

175% Motor F.L.A. plus optional heater current

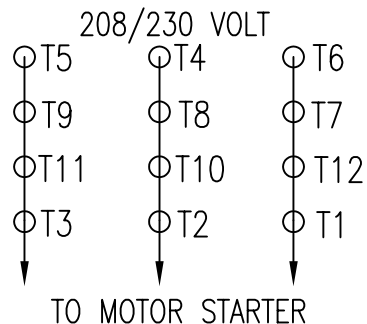
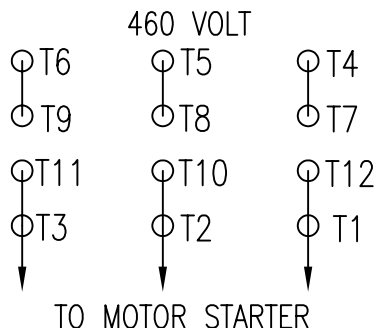
Heater at 220V draws 1.91 amps



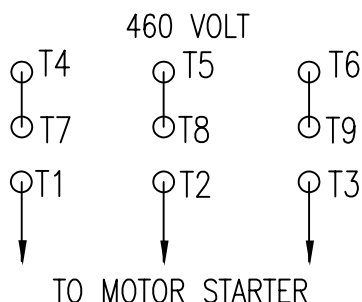
PTR BALER AND COMPACTOR CO.

MOTOR WIRING GUIDE

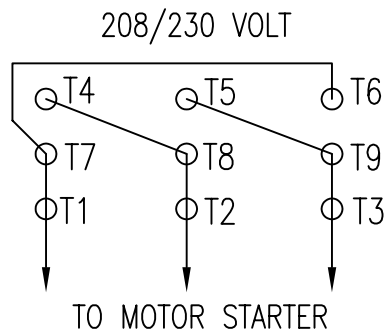
12 WIRE DELTA THREE PHASE



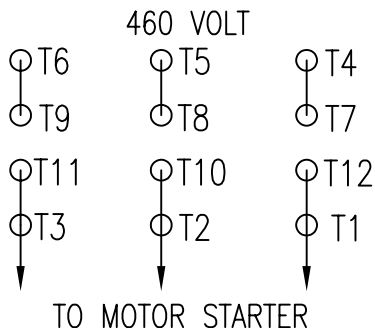
9 WIRE STAR THREE PHASE



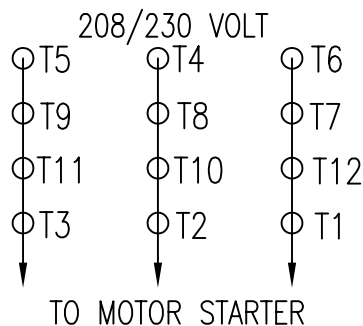
HYDROLEC
MOTORS
(WEG)



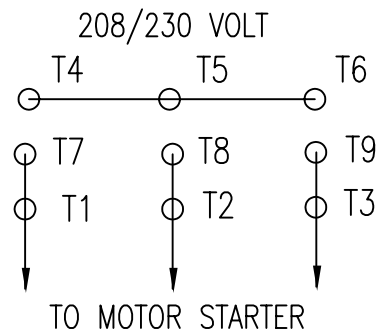
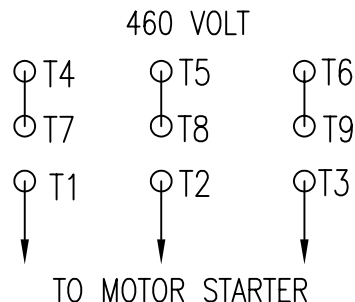
12 WIRE DELTA THREE PHASE



WARFEL
MOTORS
&
HYDROLEC
MOTORS
(BALDOR)



9 WIRE STAR THREE PHASE



NOTE: VERIFY AGAINST MOTOR NAME-PLATE WHEN POSSIBLE

4/15/98

MJM REV. 2 9-7-06
REV. 1 7-10-02

Electrical Information

For 50Hz power

GROUNDING INSTRUCTIONS

The compactor must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the compactor. A qualified electrician should be consulted if there is any doubt as to whether an outlet box or the machine is properly grounded.

| 3 HP MOTOR – 3 PHASE – 50 CYCLE | | | | |
|---|---------------|------------------|-------------------|--------------------------|
| Voltage | F.L.A. | Type Fuse | Wire Size* | Disconnect Switch |
| 380V | 5.4 amp | Time Delay | 14 | 30 amp |
| 415V | 5.2 amp | Time Delay | 14 | 30 amp |
| 440V | 5.0 amp | Time Delay | 14 | 30 amp |
| 5 HP MOTOR – 3 PHASE – 50 CYCLE | | | | |
| 380V | 8.7 amp | Time Delay | 12 | 30 amp |
| 415V | 8.0 amp | Time Delay | 12 | 30 amp |
| 440V | 7.8 amp | Time Delay | 14 | 30 amp |
| 10 HP MOTOR – 3 PHASE – 50 CYCLE | | | | |
| 380V | 17 amp | Time Delay | 8 | 30 amp |
| 415V | 16.1 amp | Time Delay | 8 | 30 amp |
| 440V | 15 amp | Time Delay | 12 | 30 amp |
| 15 HP MOTOR – 3 PHASE – 50 CYCLE | | | | |
| 380V | 23.1 amp | Time Delay | 8 | 60 amp |
| 415V | 22 amp | Time Delay | 8 | 60 amp |
| 440V | 21.5 amp | Time Delay | 8 | 60 amp |
| 20 HP MOTOR – 3 PHASE – 50 CYCLE | | | | |
| 380V | 29.2 amp | Time Delay | 8 | 60 amp |
| 415V | 28 amp | Time Delay | 8 | 60 amp |
| 440V | 27.5 amp | Time Delay | 8 | 60 amp |

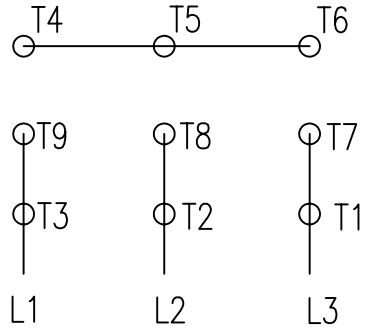
* - “Wire Size” denotes minimum wire size required to be used from power supply to disconnect switch. Use a heavier wire if distance is more than 25 feet.

PTR BALER AND COMPACTOR

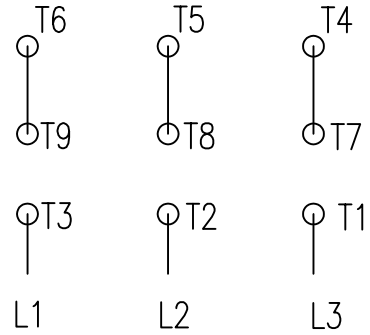
MOTOR WIRING GUIDE

9 WIRE DELTA THREE PHASE (FOR 3HP, 5HP)

208 / 230 VOLT

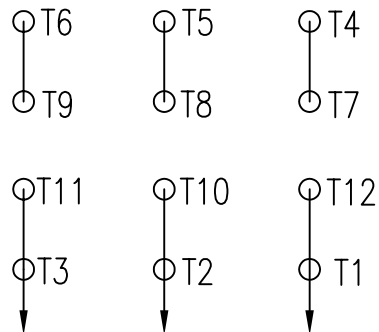


380 / 460 VOLT



12 WIRE DELTA THREE PHASE (FOR 10HP, 15HP, 20HP)

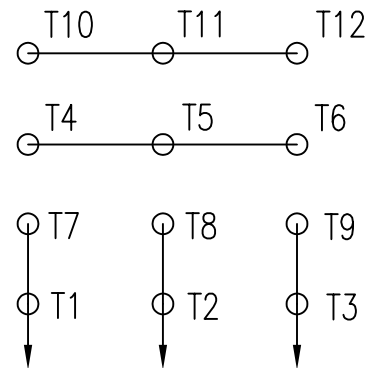
415 / 440 VOLT



TO MOTOR STARTER

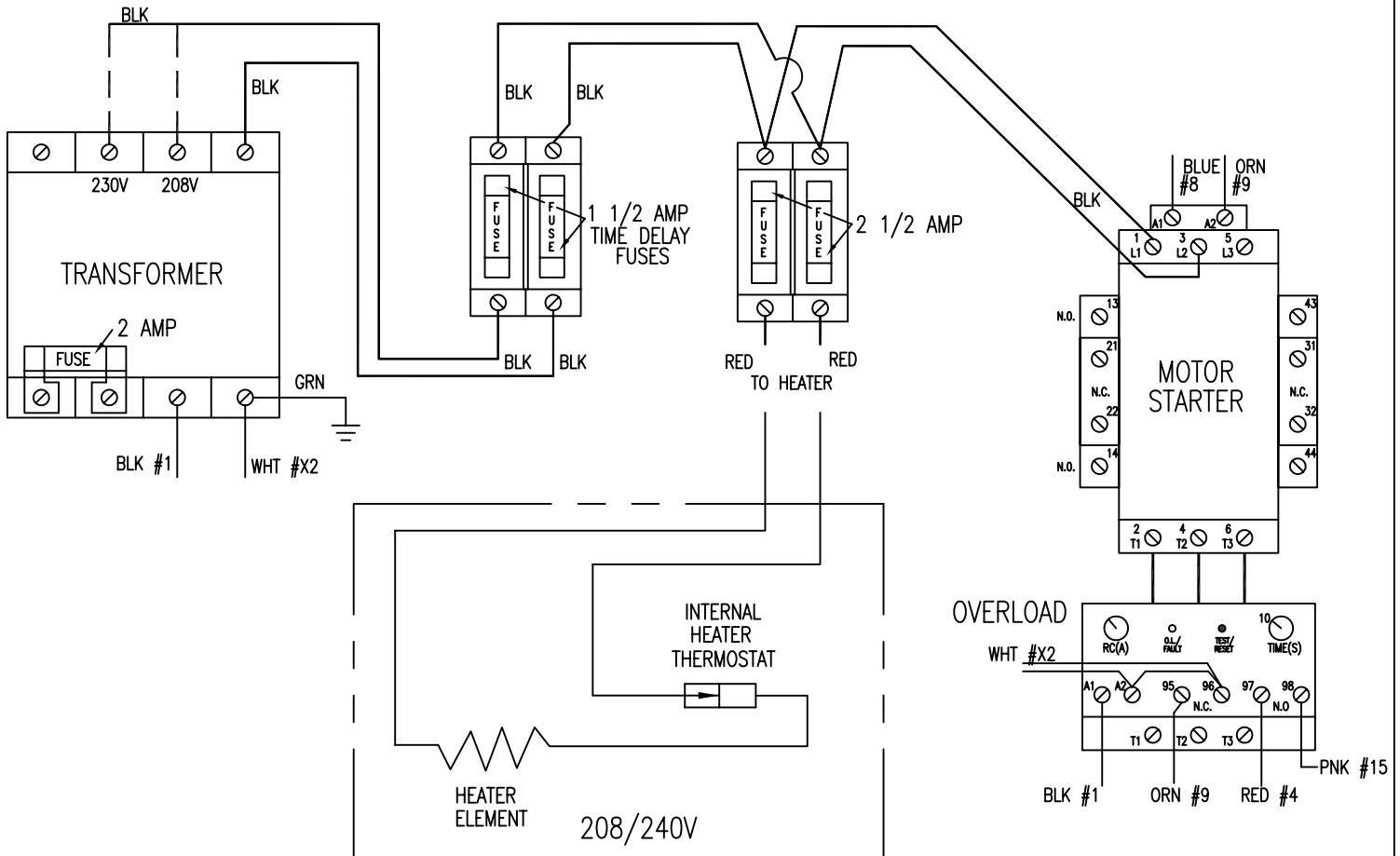
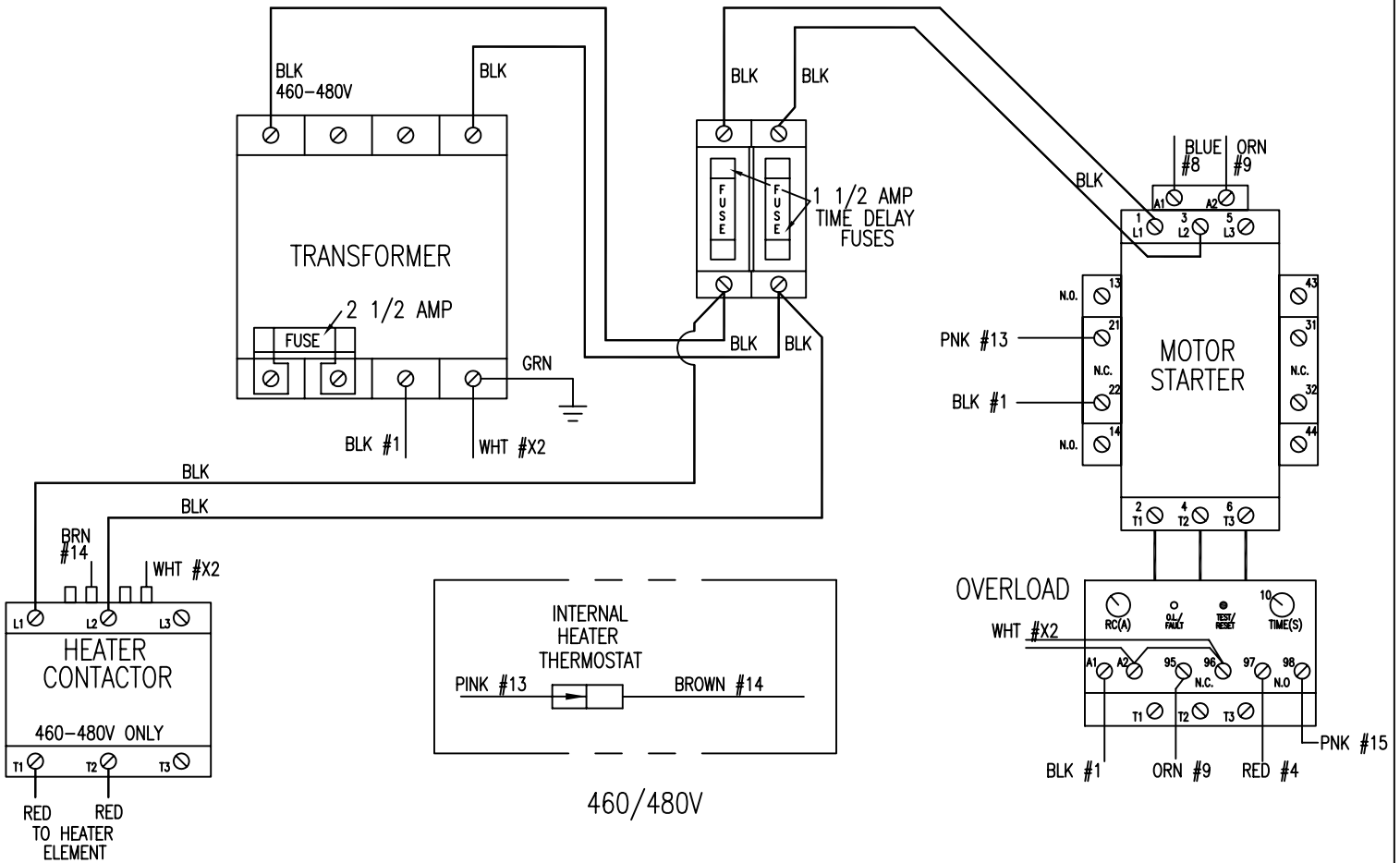
HYDROLEC
MOTORS

380 VOLT

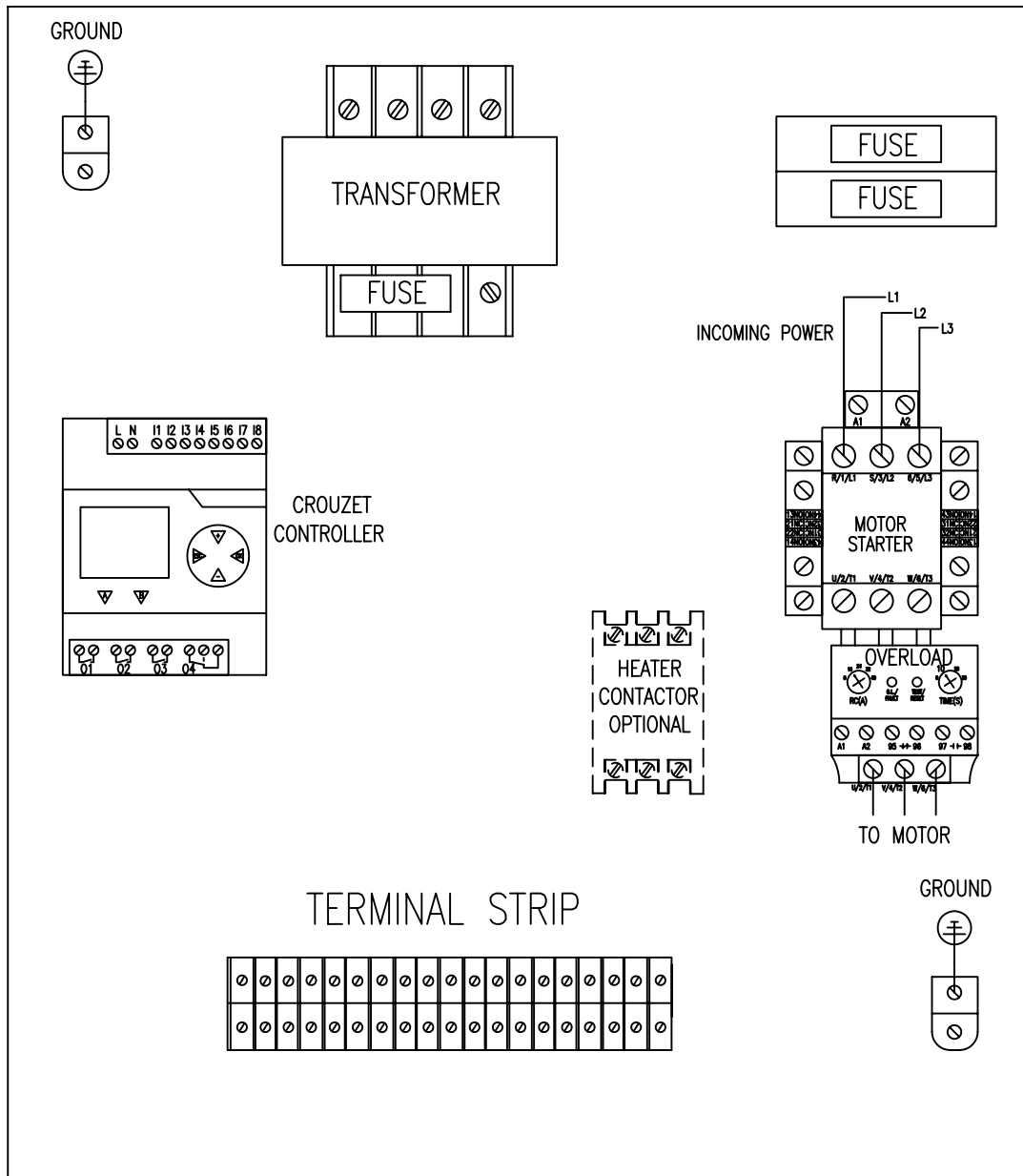


TO MOTOR STARTER

PTR BALER AND COMPACTOR CO.



PTR BALER AND COMPACTOR CO.

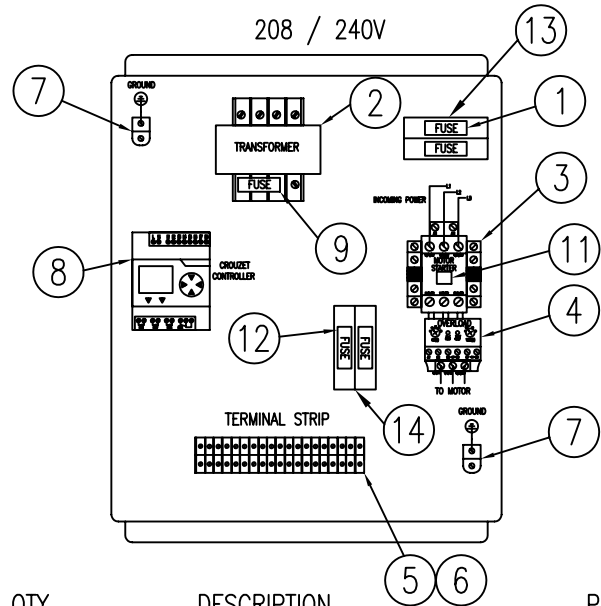
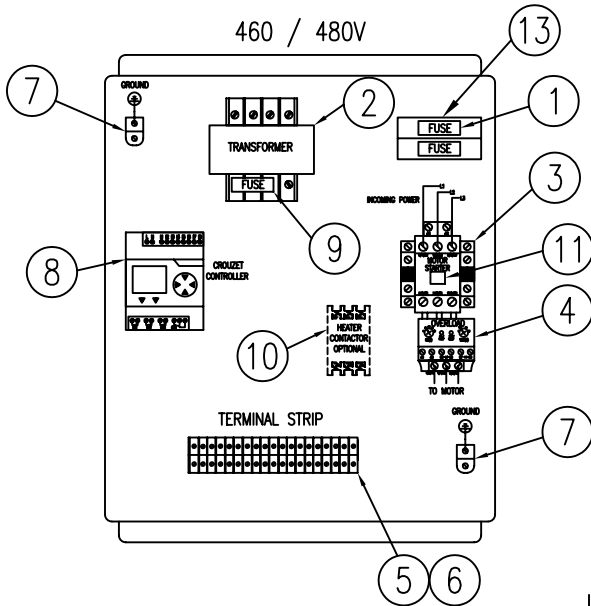
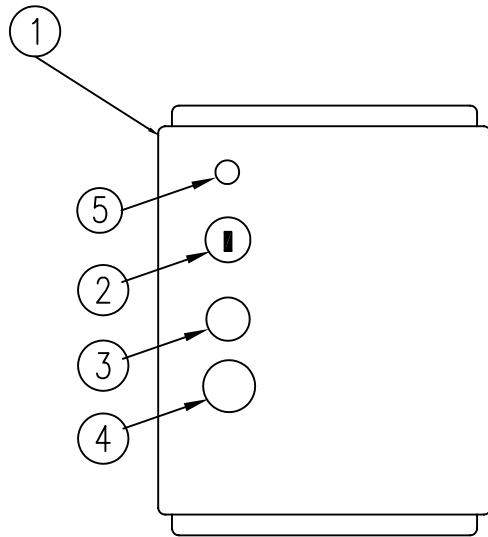


3 PHASE DELTA POWER LEADS ARE TO BE CONNECTED
IN CONTROL PANEL TO L1, L2, AND L3.

NOTE: IF MOTOR ROTATION IS REVERSED, SWITCH ANY TWO AND ONLY TWO POWER LEADS

PTR BALER AND COMPACTOR CO.

| ITEM | QTY. | DESCRIPTION | PART NO. |
|------|------|-----------------------|----------|
| 1 | 1 | ENCLOSURE (14X12X6) | 500147 |
| 2 | 1 | NO/OFF KEY SWITCH | 155408 |
| 3 | 1 | START AUTO/REV. | 155397 |
| 4 | 1 | EMERGENCY STOP BUTTON | 155398 |
| 5 | 1 | FULL LIGHT | 155413 |



| ITEM | QTY. | DESCRIPTION | PART NO. |
|------|------|---------------------------|------------------|
| 1 | 2 | 1 1/2 TIME DELAY FUSE | 603520 |
| 2 | 1 | TRANSFORMER | 155351 |
| 3 | 1 | STARTER | (SEE ELECTRICAL) |
| 4 | 1 | OVERLOAD | (SEE ELECTRICAL) |
| 5 | 19 | TERMINAL STRIP | 155441 |
| 6 | 1 | TERMINAL END SECTION | 155442 |
| 7 | 2 | GROUND LUG | 320329 |
| 8 | 1 | CROUZET CONTROLLER | 602391 |
| 9 | 1 | 2 1/2 TIME DELAY FUSE | 155602 |
| 10 | 1 | HEATER CONTACTOR OPTIONAL | 500229B |
| 11 | 1 | CONTACT COIL | 500065 |
| 12 | 2 | 2 1/2 TIME DELAY FUSE | 155602 |
| 13 | 1 | FUSE BLOCK | 500529 |
| 14 | 1 | FUSE BLOCK | 500529 |

COMPACTOR OPERATING INSTRUCTIONS

1. Close and latch Security Door.
2. Insert Power On/Off Key and turn to ON position.
3. Press Start Button.

Stop Button must be pressed for all “Emergency System Shut Downs”

NOTE:

- I. Optional 80% light will come on when container is 80% Full.
- II. Unit will shut down when container is Full. Optional 100% Full light will come on at this time. Unit may be restarted by pressing the Stop Button to clear the circuit and restarting as given above. --- Note: Unit will shut down again if full pressure is achieved on any following cycle.
- III. Emergency Stop Button will stop the unit at any time.
 - a. On Restart -Ram will retract to fully retracted position and stop. Unit will start normally after this initial restart.
- IV. Some options such as “photo-eye” start and others may affect machine operation. Review the optional components section of the manual if any options are included with the machine.

Max Force

PTR BALER AND COMPACTOR COMPANY

SERIAL NO.

MODEL NO.

MFG. DATE

OPTIONAL FEATURES

COLD WEATHER OVERRIDE

The cold weather override works as a sustained-manual-pressure forward and reverse control, to push worm oil through the hydraulic system at relief pressure prior to normal operation.

OVERRIDE INSTRUCTIONS

1. Insert override key.
2. On the first start-up, use the override key to cycle the ram full forward and full reverse (3) three times.
3. Remove override key and resume normal operating procedures.

ADVANCED WARNING LIGHT

When light is activated, container is nearly full, a hauler pick-up call should be made. The Container is 80% full, and will continue to operate until full container light comes on.

SUSTAINED MANUAL PRESSURE CONTROL

This requires the operator to stay at the control station, holding the start/run button in during the entire operating cycle of the unit. If button is released at any time the unit will stop operating instantly.

MULTI-CYCLE TIMER

Each time the unit is activated, it will cycle completely one or more times. The number of cycles are adjustable. (typically factory set for 3 cycles)

PHOTOELECTRIC START CONTROL WITH AUTOMATIC SHUTDOWN

The photo eye will start the unit when the eye has been blocked and will continue cycling the unit until the eye is cleared. If the eye is not cleared after a predetermined time, the unit will shut down and a light will go on, indicating the unit needs to be checked.

JOG CONTROL STATION

The key controlled jog station is usually located on or near the unit, and is used by the hauler to clear the hopper area so the container can be pulled for dumping. It works as a dead man forward and reverse control, while deactivating the main control Station during it's use.

THERMOSTATICALLY CONTROLLED OIL HEATER

The oil heater is installed in the oil reservoir tank and is equipped a thermostat control. The oil heater will automatically operate only when the oil gets colder then 60 degrees F.

LOW OIL SHUTDOWN INDICATOR

An oil level sensor will shut down the machine and illuminate an indicator light if the oil level falls below a pre-set level.

Crouzet Controller

General Machine Set Up

Note: The following procedure is intended only for properly trained and authorized service personnel. The controller, pressure switches, and relief cartridge are all factory set and are NOT user-operated controls.

- 1) PS-1 operates as both the “stop” pressure switch and the “full” pressure switch. This pressure switch must be plumbed into the pressure port such that it will see pressure both as the ram extends and as it retracts.
- 2) PS-2, if required, is the 80% light and may be plumbed into either the extend port or the pressure port.
- 3) To set the pressures: (Note: Both inputs and outputs are 120V)
 - a) Set the pressure switch to a high pressure and back the relief off to a low pressure.
 - b) Power up and start the machine. The ram will bottom out on the retract stroke and the pump will continue to run.
 - c) Adjust the relief pressure to the intended full pressure.
 - d) Slowly back off on the pressure switch until the motor either stops or the ram starts to run forward.
 - e) The pressure switch is now set.
 - f) Adjust the reverse timer to a time in excess of the normal reverse time. (Push the “A” button to access this screen. Push the “OK” button to enter editing mode. Use the up and down arrows to adjust the time. Push the “OK” button again to enter the new value.)
 - g) Start the machine. The ram will run all the way forward and bottom out. The full light (and 80% light if present) will come on and the machine will stop. (This double checks the full pressure setting and the functioning of the bulb)
 - h) If present, the 80% light can now be set by backing off the relief and once again starting the machine. Adjust the relief to the intended 80% pressure and restart the machine if necessary to bottom out the ram on the forward stroke. On the forward stroke only, adjust the 80% pressure switch till the 80% light comes on.
 - i) Disconnect the pressure switch wire and once again start the machine.
 - j) After the ram bottoms out on either the forward or reverse stroke, adjust the relief valve to the intended relief pressure.
 - k) Re-attach the pressure switch wire.
 - l) Set the reverse timer to the correct time.

Note on Operation: Once a safe stop condition occurs, the machine may only be started using the manual start push button or start key switch. Only after the machine is cycled once with the manual start will any optional auto-start circuit become active. Conditions that will cause a safe stop include e-stop, power failure, full pressure, interlock opening while ram is in motion, optional photo-eye blocked for excessive time, etc. Also, Multi-Cycle (if present) will be disabled for the first start after a safe stop.

Crouzet Program Operation AC4025274 & AC402987

Features: Multi-cycle, 100% light

- The machine will reverse after traveling forward for a factory preset period of time and detect the fully retracted home position by pressure.
- The controller is not an operator control. It is located inside the electrical control box and should only be accessed or adjusted by properly trained and authorized service personnel.
- The multi-cycle will automatically cycle the machine a set number of cycles every time the machine is started except when following a “Safe Stop”. See “Safe Stop” below. The Multi-cycle counter is factory pre-set.
- The initial machine start after any “safe stop” shut down can only be accomplished by manually pressing the start button. The multi-count start circuit will only become active after the machine has run the initial “return home” cycle.
- If the ram is stopped in any position other than the fully retracted position, then the start button will only cause the ram to retract and stop. The start button will need to be pressed again in order to start a normal machine cycle.
- A “safe stop” shut down will occur if the e-stop is pressed, the key switch is turned off, power is lost, or full pressure is achieved while the ram is in any other position besides the “home position” (fully retracted). A “Safe Stop” will also occur if the feed door is opened while the machine is cycling, or if the pressure switch fails (watch-dog timer)
- A “safe stop” condition will reset the multi-count back to zero.
- The multi-counter screen can be viewed by pressing button “B” on the controller face. This will allow both the present count and the preset count to be viewed. Pressing the “OK” button while in this screen will enter the programming mode and allow the preset count to be adjusted with the up and down arrows. After the desired count is shown, press the “OK” button again to enter the count and update the program. Pressing “B” again will return to the main monitoring screen.
- The reverse timer is pre-set in the program from the factory. This setting may be viewed or altered by pressing button “A” on the controller face. This will allow both the present time and the preset time to be viewed. Pressing the “OK” button while in this screen will enter the programming mode and allow the preset time to be adjusted with the up and down arrows. After the desired time is shown, press the “OK” button again to enter the count and update the program. Pressing “A” again will return to the main monitoring screen. Note: Time units are in 100 millisecond increments. IE 46.5 seconds is entered as 465 and 18 seconds is entered as 180.

Photo-Eye Start
Program Operation
AC402097x

Features: 100% light standard, 80% light optional, and Photo-eye start.

- The photo-eye will automatically start the machine each time it is blocked for the set time period. If the photo-eye is continuously blocked for this time period, the contact will close and send a signal to the controller. The warning light will flash continuously as long as the photo-eye start circuit is active. Note: For field changes, consult photo-eye documentation for setting the delay. The photo-eye is not a user operator control.
- Once the controller received the start signal from the either the photo-eye or the start button, the audible alarm will sound for twenty seconds prior to the machine auto starting. ***If the photo-eye is uncovered during this time or the start button released, the machine will not start up.*** The audible alarm will stop sounding once the machine starts while the visible warning will continue to flash while the machine is running and while the photo-eye start circuit is active. Total delay of approximately 21 seconds.
- The initial machine start after any “safe stop” shut down can only be accomplished by manually pressing the start button or turning the start key. The auto-start circuit will only become active after the machine has run the initial cycle.
- A “safe stop” shut down will occur if the e-stop is pressed, the key switch is turned off, power is lost, full pressure is achieved, the feed door is opened while the machine is cycling, if the photo-eye remains blocked for more than the photo-eye blocked timer setting, if the first watch-dog timer detects a pressure switch or directional valve failure, if the machine runs continuously for more time than the second watchdog timer is set for, or other error condition occurs.
- To re-initialize the auto-start circuit, first clear the shut down condition. I.E. Pull the e-stop out, restore power, close the feed door, etc. Then manually start the machine using the start push-button or key start switch. The “Photo-Eye Blocked / Manual Start Req.” light will blink to indicate that a manual start is required or will stay constantly lit if the Photo-Eye is blocked. The warning light will also stop flashing if the photo-eye start circuit becomes inactive. Note: ***The delay and alarm will be active even in the case of a manual start. The start button MUST be held in for 20 seconds before the machine will start. The machine will not start if the start button is released before this time.***

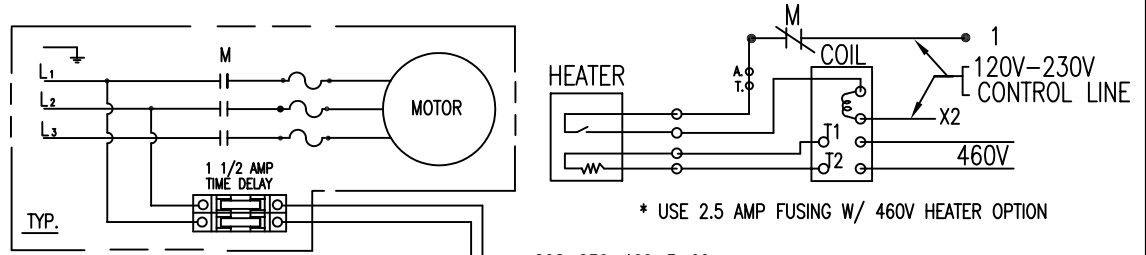
- The warning light and audible alarm must be audible and visible at the compactor. Also, a machine control such as a jog station or disconnect must be visible from the discharge end of the compactor.
- Apply “This Machine Starts Automatically” label to the hopper at the photo-eye, to the front of the hopper so it is visible when the container is pulled (except TP-33 where container is manually pulled and the sticker on the side of the machine is clearly visible at the binder attachment), on the auxiliary clean out door if present, and on the security door if present (ship loose with security door stickers). A total of four is required except where two of the locations are close enough together that one sticker will suffice for both or if one of the options is not present. Note: For field install apply stickers to any of these locations where this sticker does not already exist.
- Apply “Before Opening Door, Turn Control Panel Key to Off Position, Remove Key, and Block Off Trash Chute” label to the auxiliary clean out door on the hopper (if present).
- Apply “Light On: Photo-Eye Blocked / Light Blinking: Manual Start Req.” label to the control panel at the photo-eye blocked light.
- An interlock switch is required on all hopper loading doors.
- No limit switches are required. Unit shifts from reverse to forward on pressure and from forward to reverse on a timer.
- The controller is not a user operated control. It is located inside the control panel and should only be accessed or adjusted by properly trained and authorized service personnel.
- The reverse timer can be set by pressing the “A” button on the front controller panel to access the reverse timer set up screen. Once in this screen hit the “OK” button to unlock the set value then use the up and down arrows to enter the desired timer setting. Press the “OK” button again to enter the new value. Note: This setting is in 1/10th seconds so 305 will actually be 30.5 seconds. Pushing the “A” button again will return to the main screen.

PTR BALER AND COMPACTOR CO.

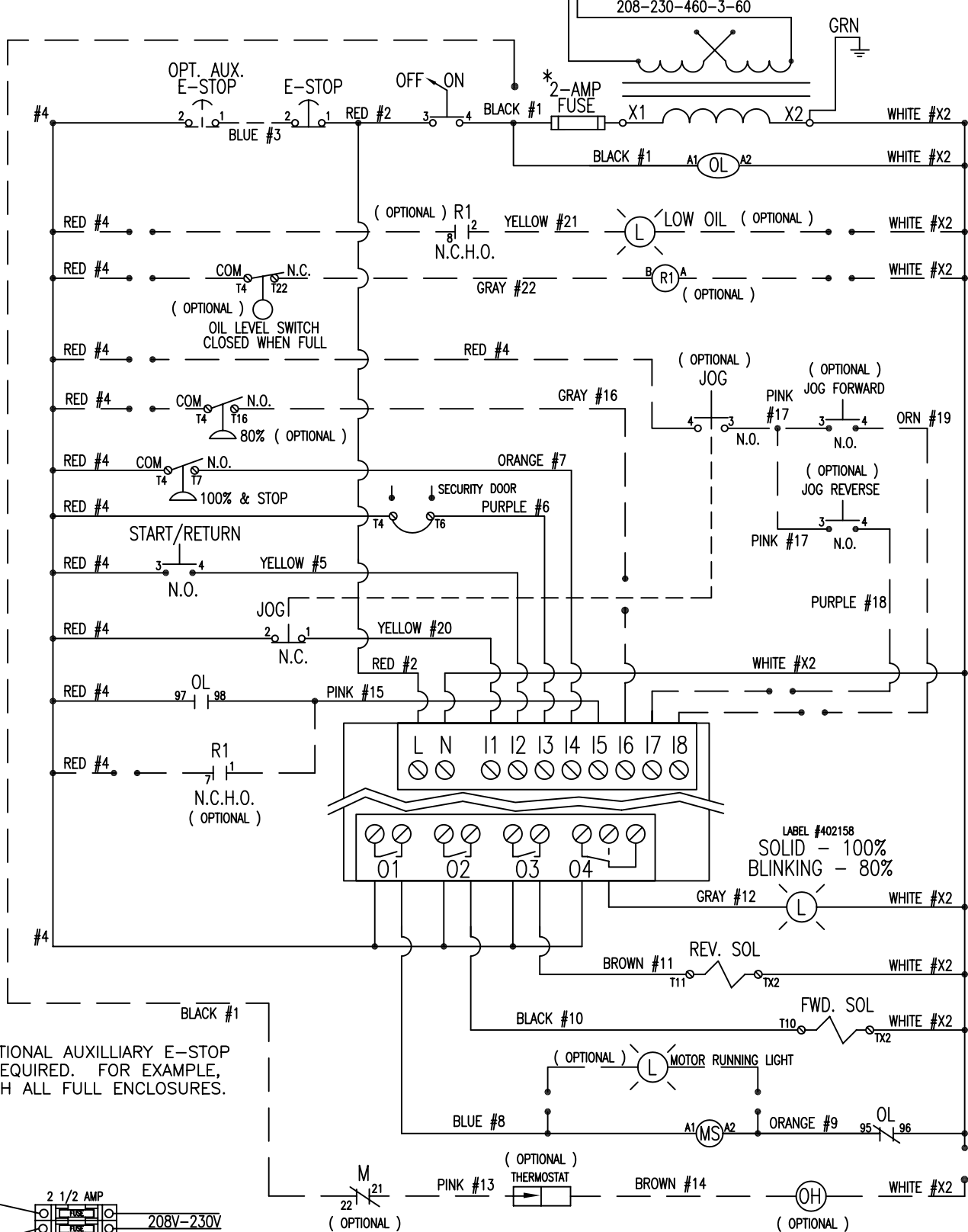
ORIGINAL PROGRAM:

"MULTI WITH JOG" 4/22/04 TO 10/18/05
 "402527" FROM 10/18/05 TO PRESENT

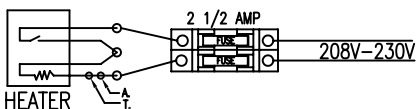
FOR SUSTAINED MANUAL PRESSURE CONTROLS:
 USE PROGRAM "402527 SUSTAINED MANUAL"



* USE 2.5 AMP FUSING W/ 460V HEATER OPTION

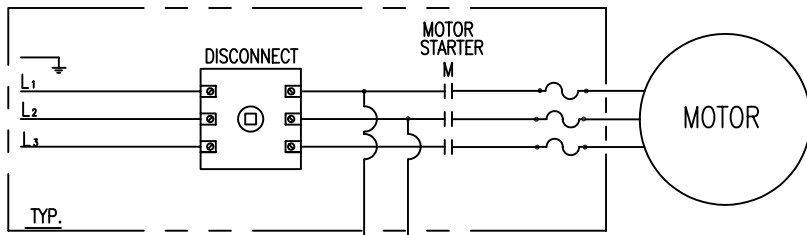
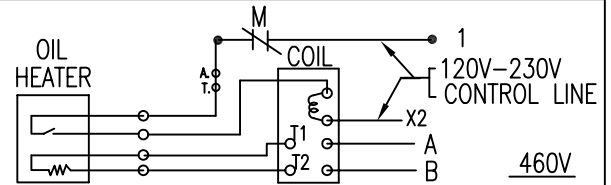


USE OPTIONAL AUXILLIARY E-STOP WHEN REQUIRED. FOR EXAMPLE, USE WITH ALL FULL ENCLOSURES.

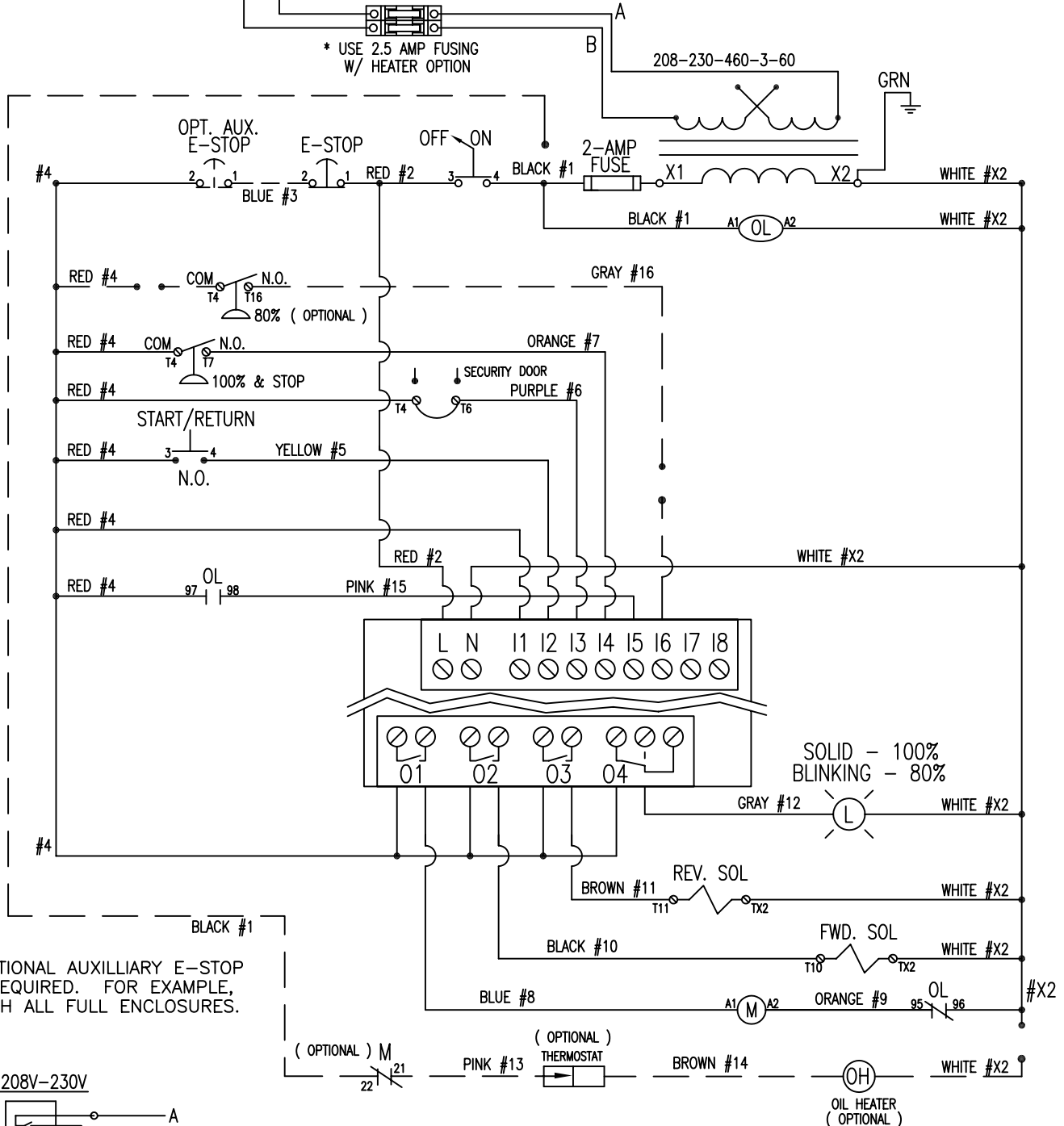


* RAM NORMALLY RETRACTED.

PTR BALER AND COMPACTOR CO.

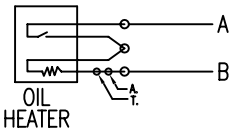


2 AMP. *
* USE 2.5 AMP FUSING
W/ HEATER OPTION



USE OPTIONAL AUXILLIARY E-STOP WHEN REQUIRED. FOR EXAMPLE, USE WITH ALL FULL ENCLOSURES.

208V-230V



PROGRAM: MULTI WITH JOG

IDENTICAL TO AC4025272 WITH DISCONNECT ADDED AND RARELY USED OPTIONS REMOVED

* RAM NORMALLY RETRACTED.

11-1-05

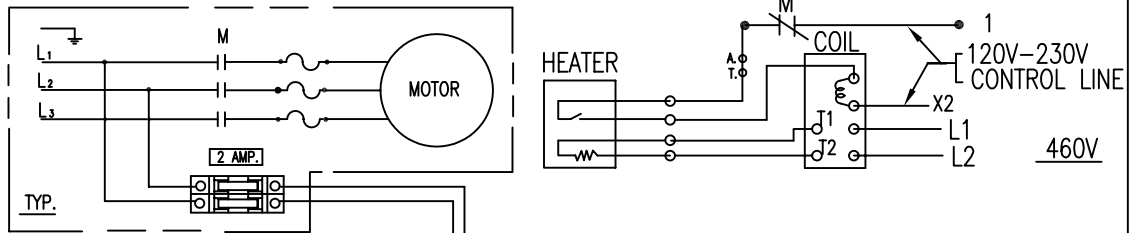
TITLE:

MULTI-CYCLE WITH OPTIONAL 80%

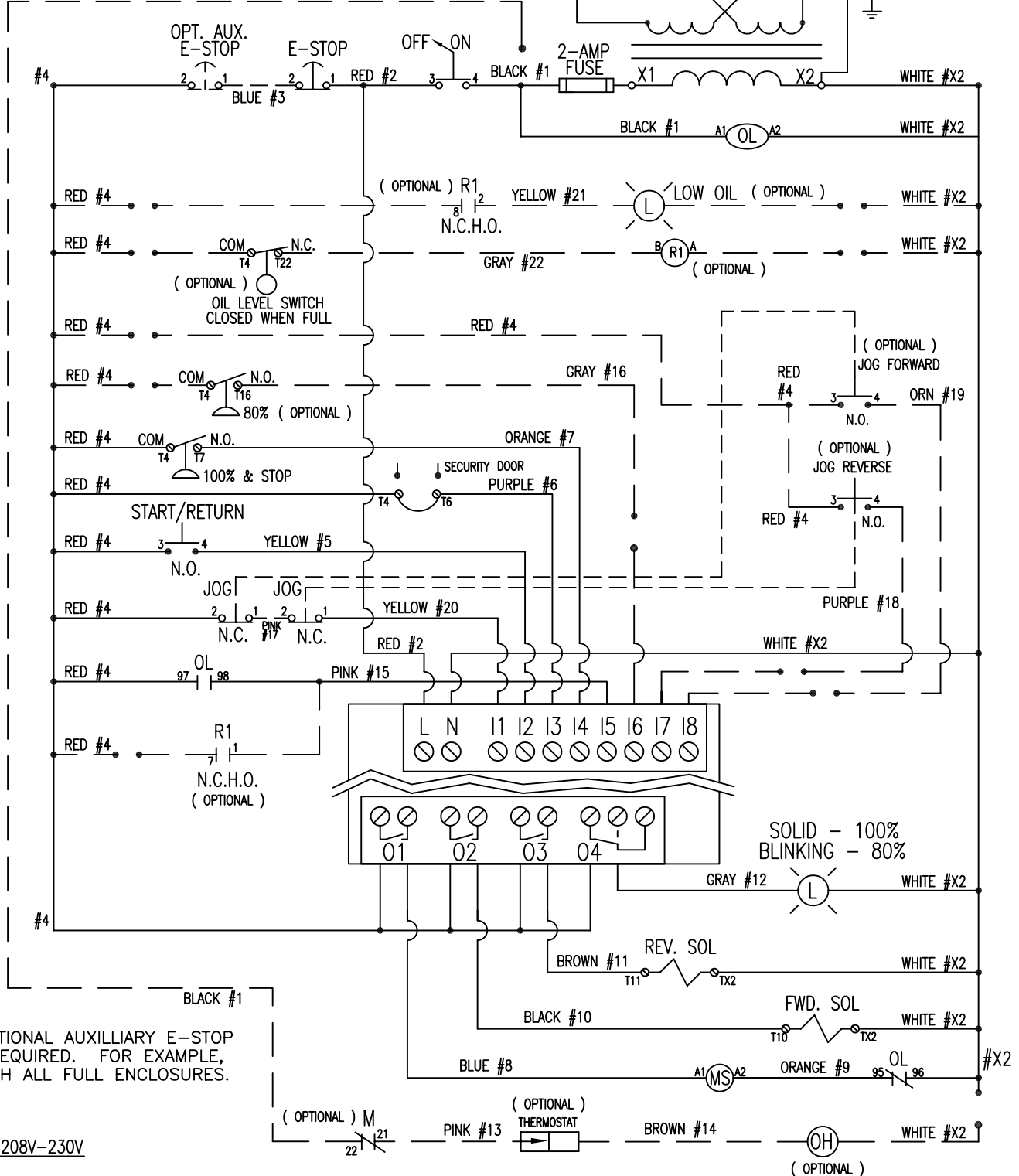
DWG. NO: AC402987

PTR BALER AND COMPACTOR CO.

ORIGINAL PROGRAM:
 "MULTI WITH JOG" 4/22/04 TO 10/18/05
 "402527" FROM 10/18/05 TO PRESENT
 FOR SUSTAINED MANUAL PRESSURE CONTROLS:
 USE PROGRAM "402527 SUSTAINED MANUAL"

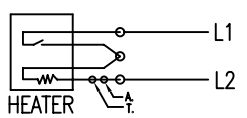


* USE 2.5 AMP FUSING W/ HEATER OPTION



USE OPTIONAL AUXILLIARY E-STOP WHEN REQUIRED. FOR EXAMPLE, USE WITH ALL FULL ENCLOSURES.

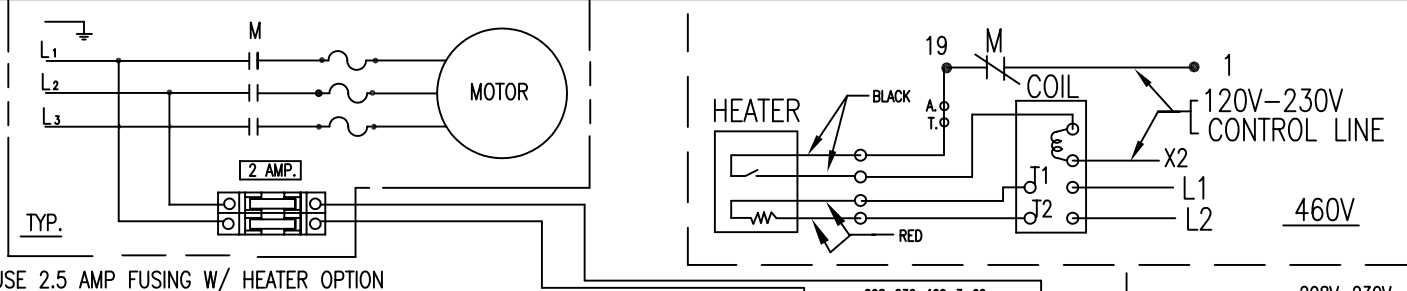
208V-230V



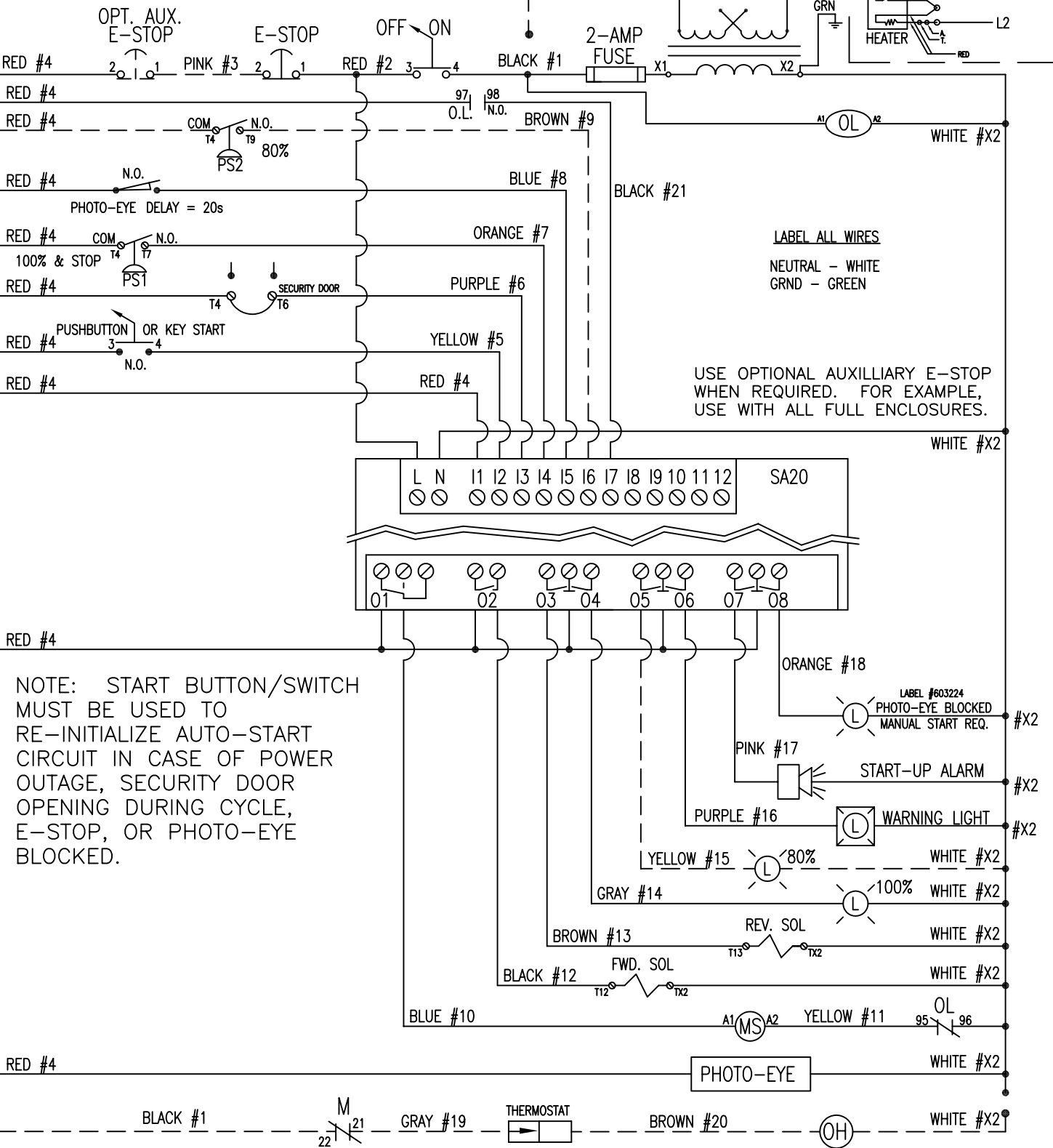
JOG AND MANUAL COLD WEATHER OVERRIDE ARE IDENTICAL PROGRAMS.

* RAM NORMALLY RETRACTED.

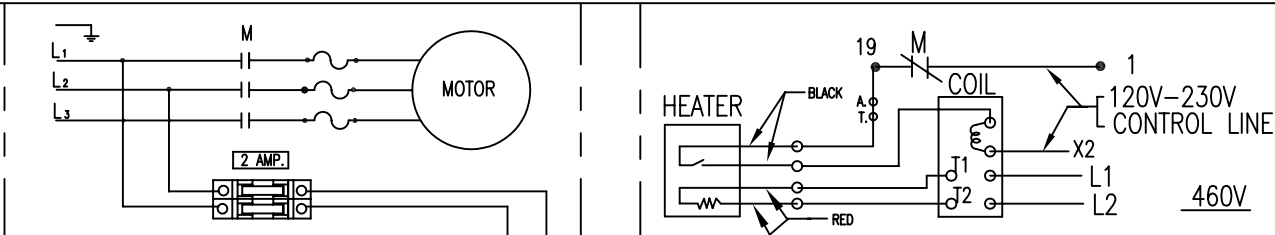
PTR BALER AND COMPACTOR CO.



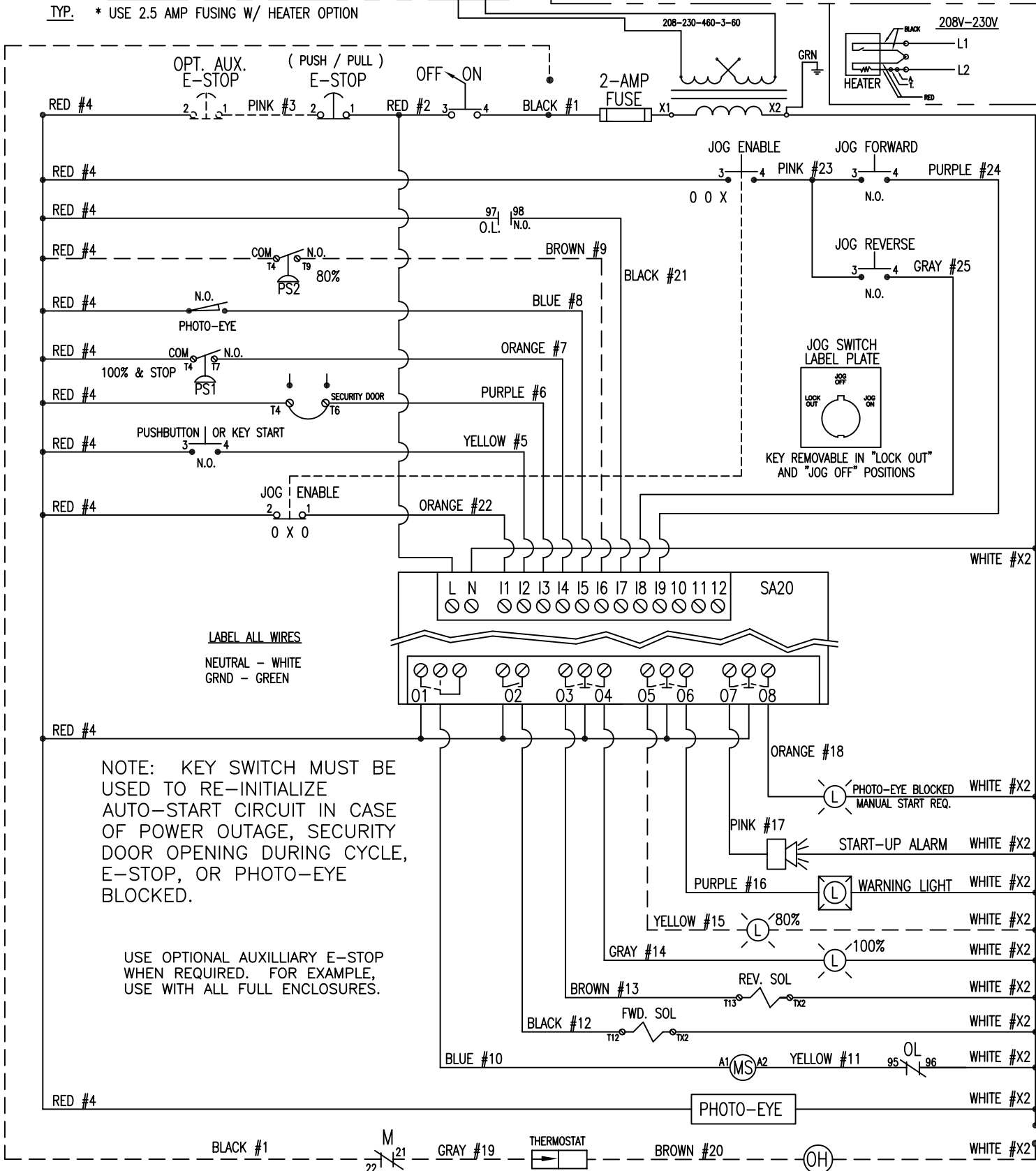
* USE 2.5 AMP FUSING W/ HEATER OPTION



PHILADELPHIA TRAMRAIL COMPANY



TYP. * USE 2.5 AMP FUSING W/ HEATER OPTION



NOTE: KEY SWITCH MUST BE USED TO RE-INITIALIZE AUTO-START CIRCUIT IN CASE OF POWER OUTAGE, SECURITY DOOR OPENING DURING CYCLE, E-STOP, OR PHOTO-EYE BLOCKED.

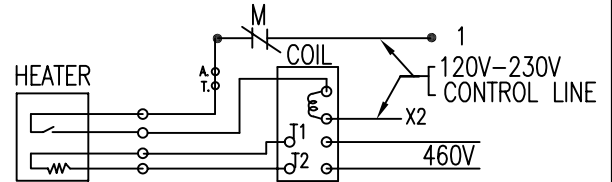
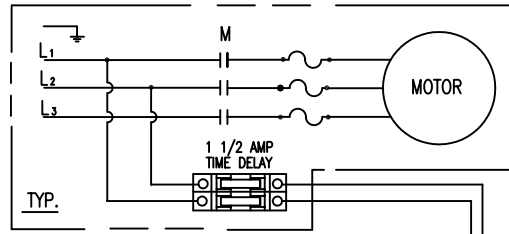
USE OPTIONAL AUXILLIARY E-STOP WHEN REQUIRED. FOR EXAMPLE, USE WITH ALL FULL ENCLOSURES.

PTR BALER AND COMPACTOR CO.

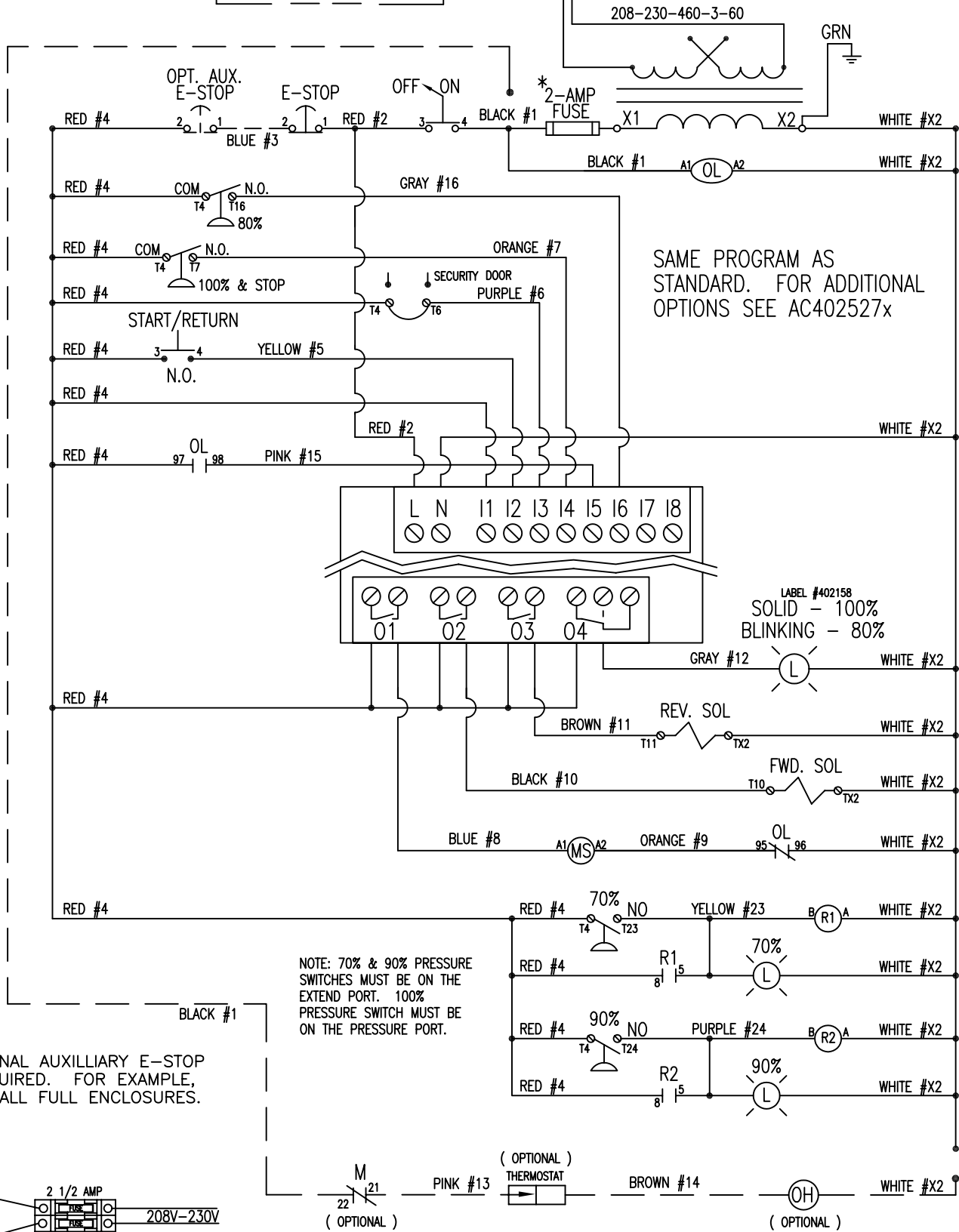
ORIGINAL PROGRAM:

"MULTI WITH JOG" 4/22/04 TO 10/18/05
 "402527" FROM 10/18/05 TO PRESENT

FOR SUSTAINED MANUAL PRESSURE CONTROLS:
 USE PROGRAM "402527 SUSTAINED MANUAL"



* USE 2.5 AMP FUSING W/ 460V HEATER OPTION



SAME PROGRAM AS STANDARD. FOR ADDITIONAL OPTIONS SEE AC402527x

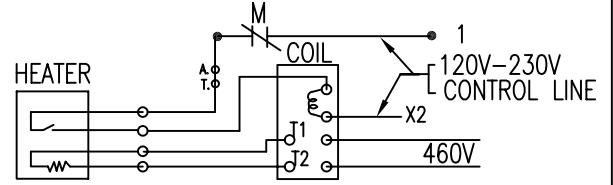
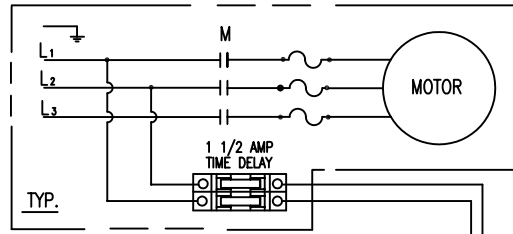
LABEL #402158
 SOLID - 100%
 BLINKING - 80%

* RAM NORMALLY RETRACTED.

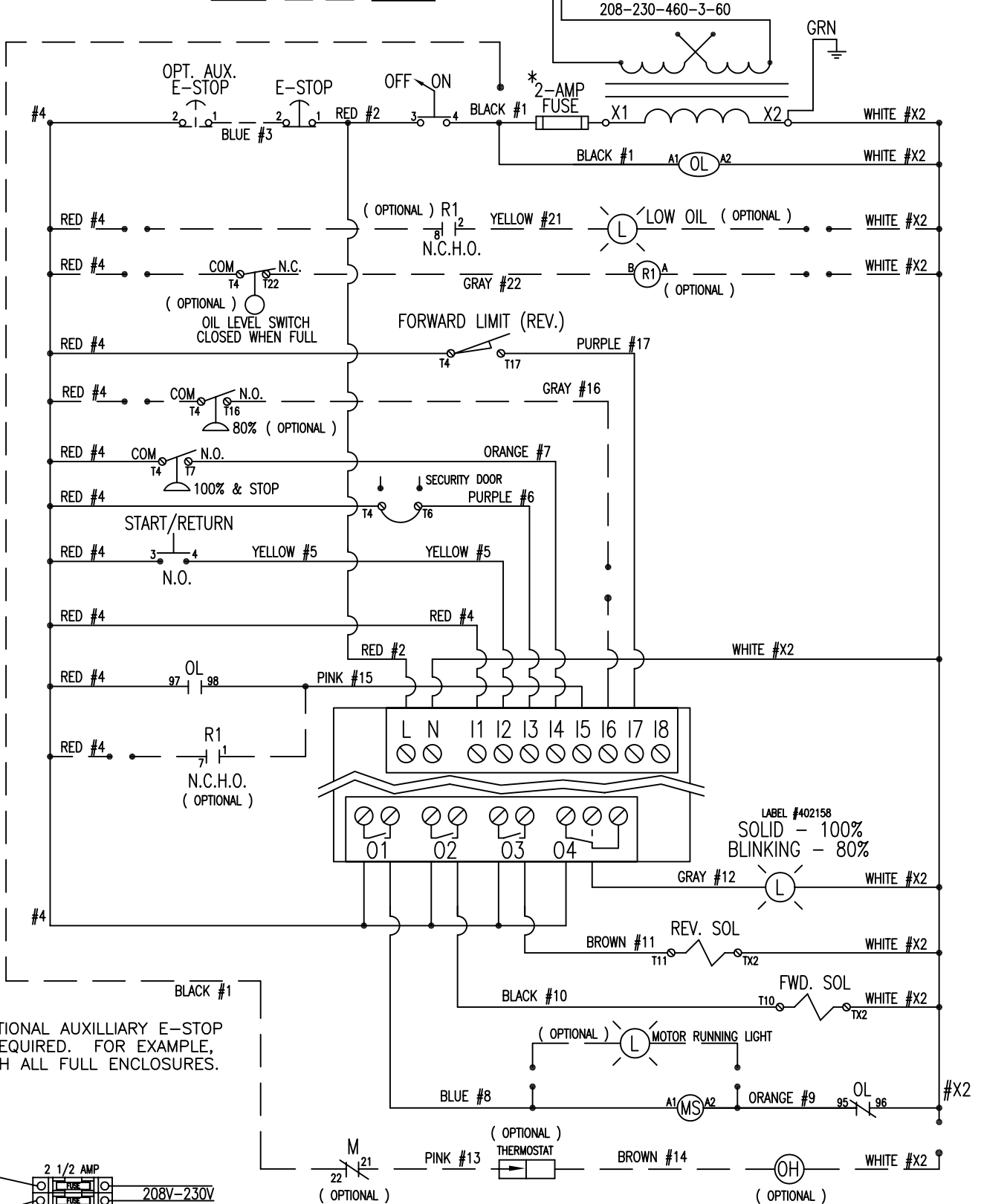
PTR BALER AND COMPACTOR CO.

ORIGINAL PROGRAM:

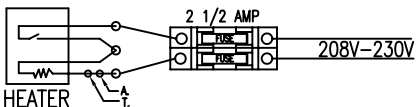
TYSON 3-6-06



* USE 2.5 AMP FUSING W/ 460V HEATER OPTION

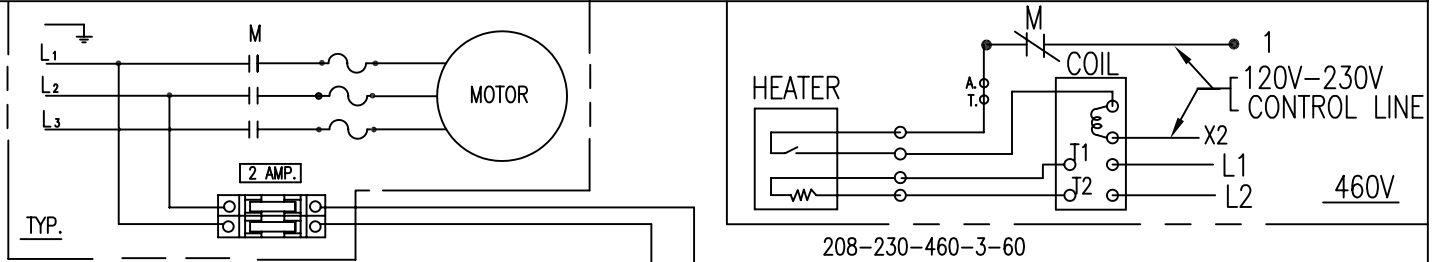


USE OPTIONAL AUXILLIARY E-STOP WHEN REQUIRED. FOR EXAMPLE, USE WITH ALL FULL ENCLOSURES.

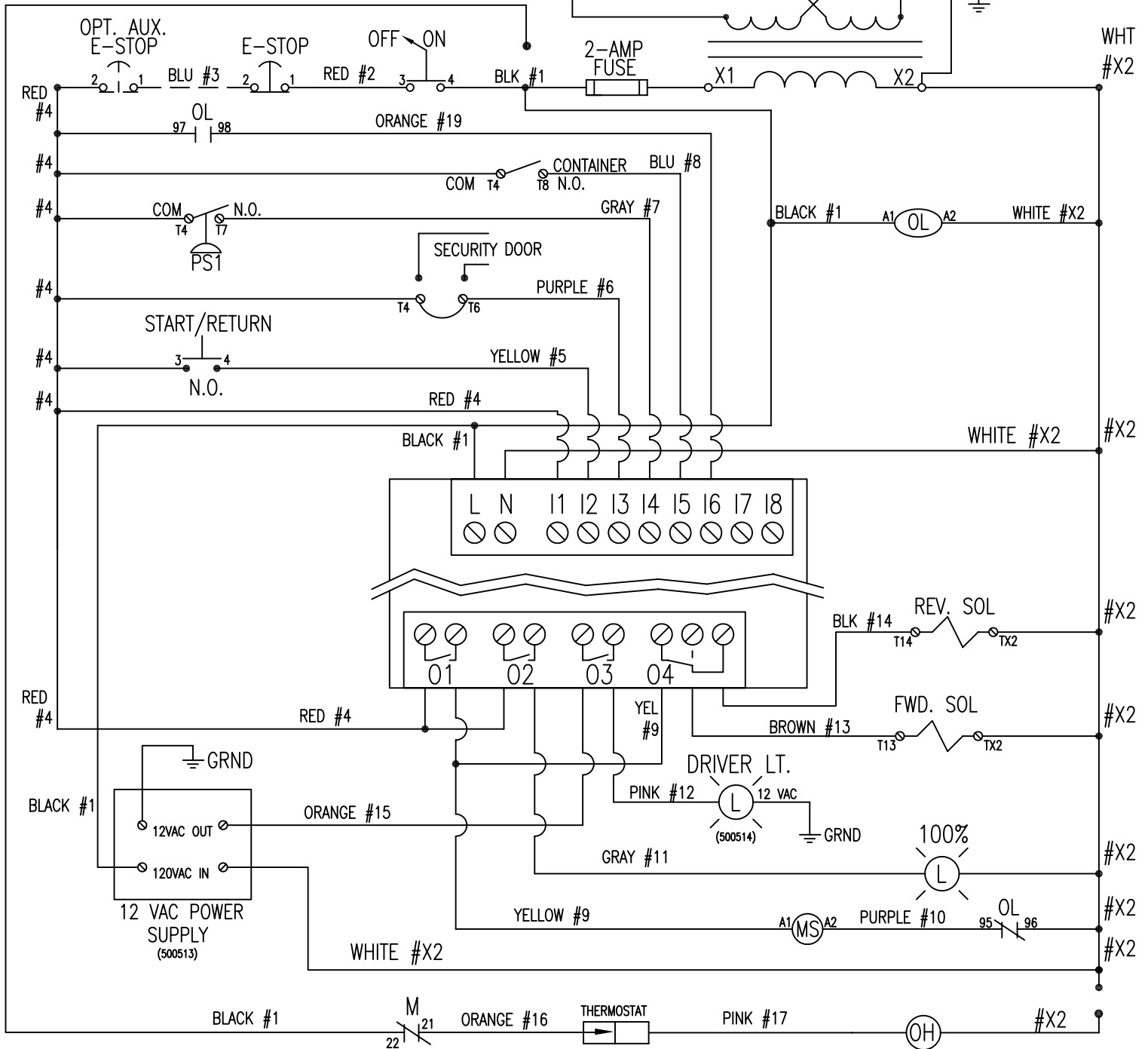


* RAM NORMALLY RETRACTED.

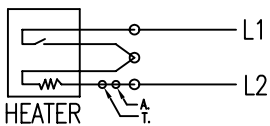
PTR BALER AND COMPACTOR CO.



* USE 2.5 AMP FUSING W/ HEATER OPTION



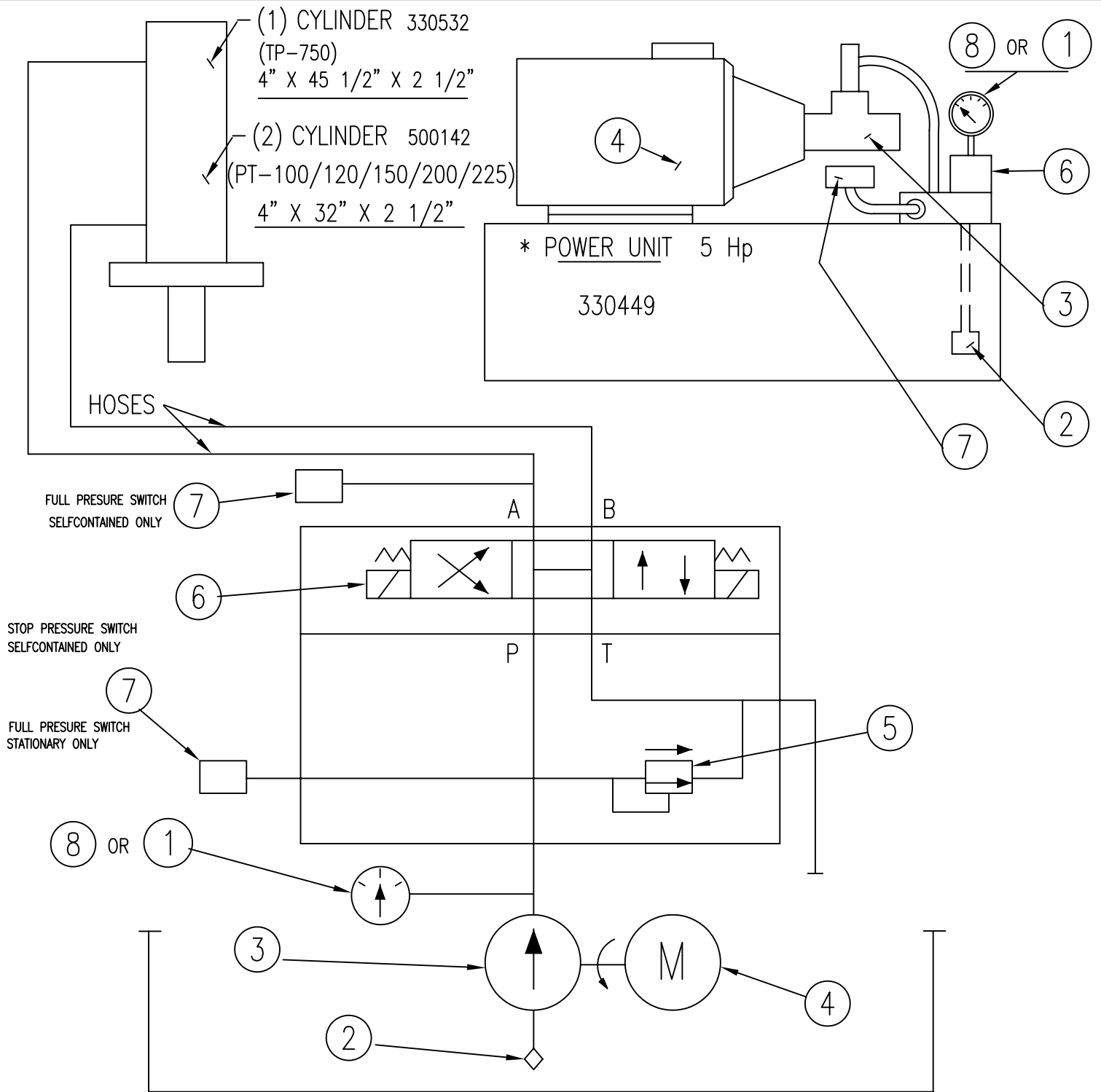
208V-230V



* RAM NORMALLY RETRACTED.

rev. 1 5-7-04
 rev. 2 5-19-04
 rev. 3 6-14-04
 rev. 4 8-26-04
 rev. 5 8-9-05
 rev. 6 5-8-08

PTR BALER AND COMPACTOR CO.



- | | |
|------------------------------|-----------------|
| 1. PRESSURE GAUGE (COLOR) | <u>330766-1</u> |
| 2. INLET STRAINER: | <u>311642</u> |
| 3. PUMP: | <u>500249</u> |
| 4. MOTOR 5 Hp: | <u>500248</u> |
| 5. RELIEF VALVE: | <u>330465</u> |
| 6. DIRECTIONAL VALVE (4 WAY) | <u>500196</u> |
| 7. PRESSURE SWITCH: | <u>312300</u> |
| 8. PRESSURE GAUGE: | <u>320068</u> |

SYSTEM IS DESIGNED FOR USE WITH
DRYDEN ISO GRADE 46 HYDRAULIC
FLUID OR EQUAL.

APPROX: 6.5 G.P.M.
USING NO MAX. SYSTEM

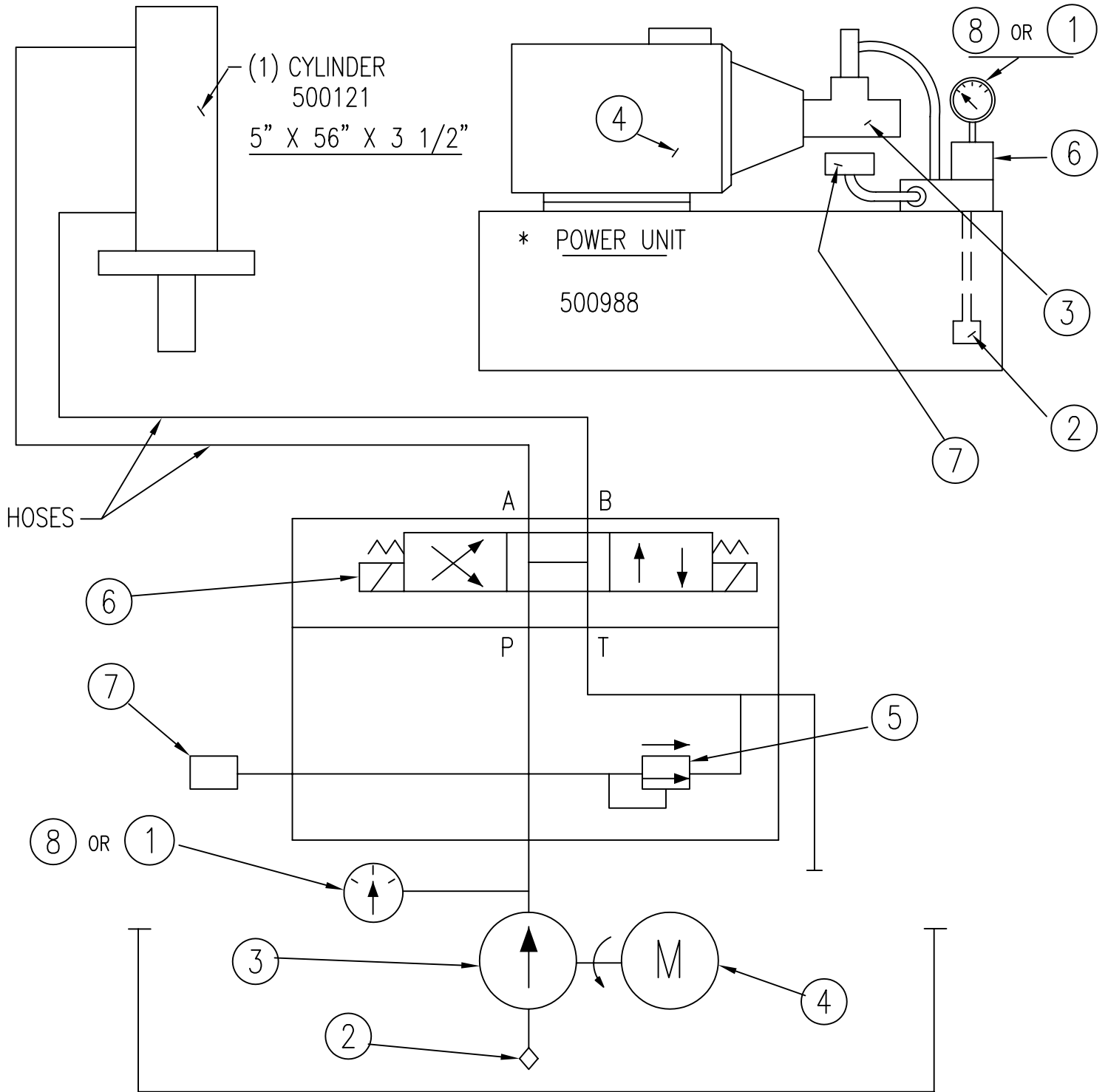
* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

REV 3 - 9/19/06
REV 2 - 7/13/05
REV 1 - 3/26/03
4/27/98

PLD: 1"=1"

TITLE: HYDRAULIC POWER UNIT ASS'Y (TP-750)(PT-100/120/150/200/225) DWG. NO: AC3404453

PTR BALER AND COMPACTOR CO.



- 1. PRESSURE GAUGE (COLOR) 330766-1
- 2. INLET STRAINER: 311642
- 3. PUMP: 500126
- 4. MOTOR: 602001
- 5. RELIEF VALVE: 330465
- 6. DIRECTIONAL VALVE (4 WAY) 500196
- 7. PRESSURE SWITCH: 312300
- 8. PRESSURE GAUGE: 320068

SYSTEM IS DESIGNED FOR USE WITH
 DRYDEN ISO GRADE 46 HYDRAULIC
 FLUID OR EQUAL.

APPROX: 10.5 G.P.M.
 USING NO MAX. SYSTEM

* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

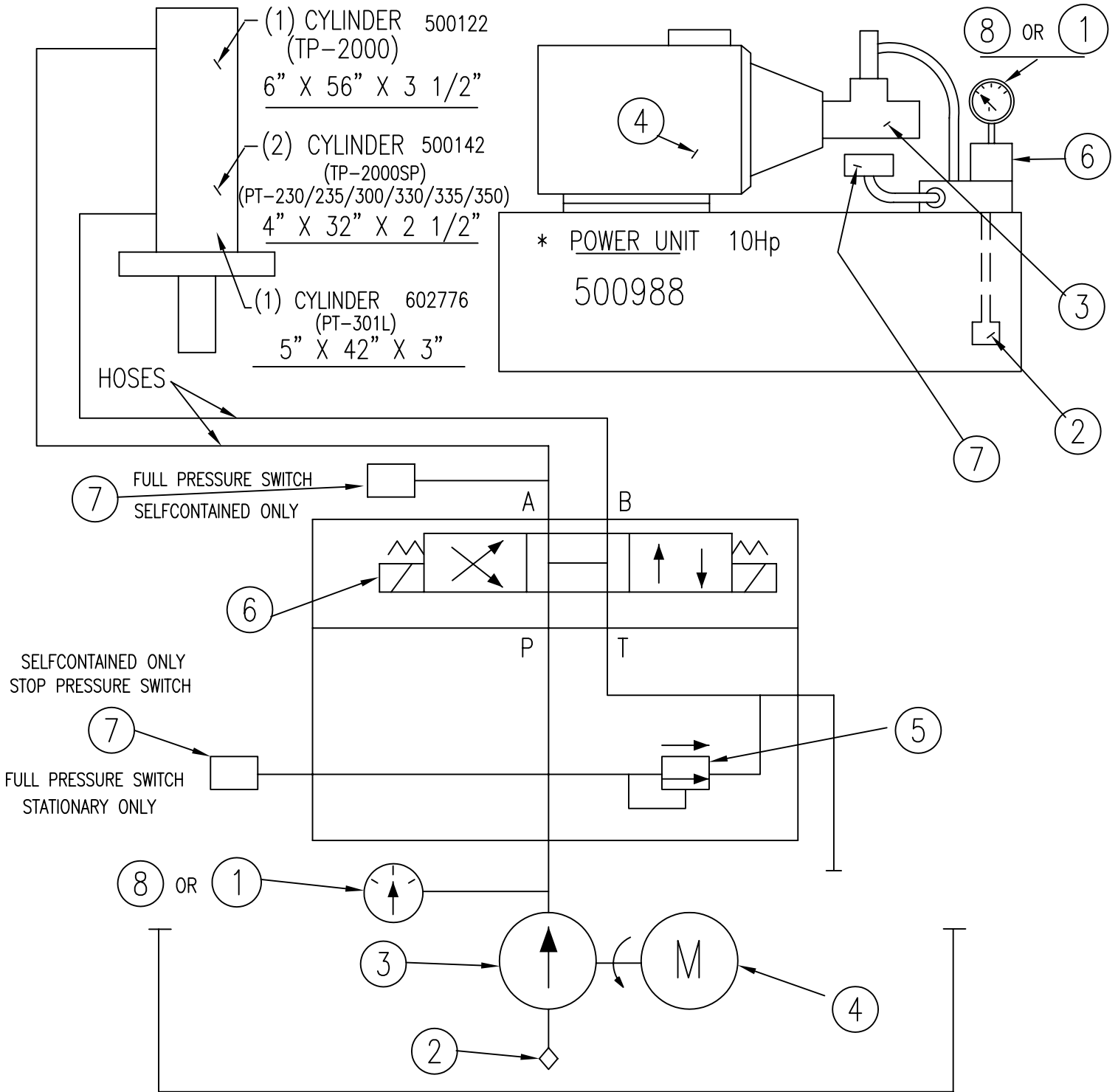
9/18/06

PLN: 1"=1"

TITLE: HYDRAULIC POWER UNIT (TP-2000 & TP2000C)

DWG. NO: AC3404441

PTR BALER AND COMPACTOR CO.



- | | |
|------------------------------|-----------------|
| 1. PRESSURE GAUGE (COLOR) | <u>330766-1</u> |
| 2. INLET STRAINER: | <u>311642</u> |
| 3. PUMP: | <u>500126</u> |
| 4. MOTOR 10Hp: | <u>602001</u> |
| 5. RELIEF VALVE: | <u>330465</u> |
| 6. DIRECTIONAL VALVE (4 WAY) | <u>500196</u> |
| 7. PRESSURE SWITCH: | <u>312300</u> |
| 8. PRESSURE GAUGE: | <u>320068</u> |

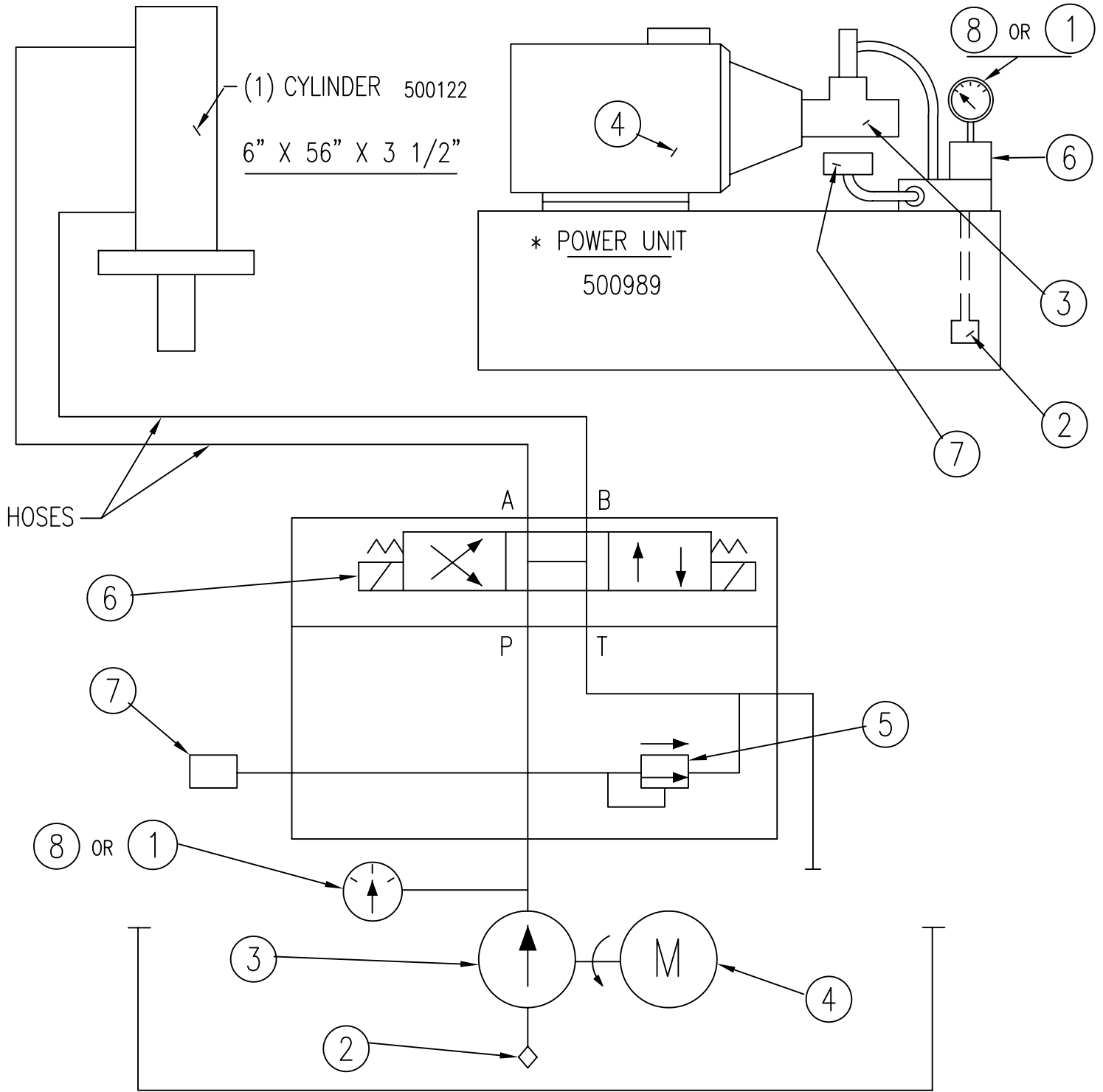
SYSTEM IS DESIGNED FOR USE WITH
 DRYDEN ISO GRADE 46 HYDRAULIC
 FLUID OR EQUAL.

APPROX: 10.5 G.P.M.
 USING NO MAX. SYSTEM

* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

4/27/98
 REV. 1 - 9/27/01
 REV. 2 - 1/13/03
 REV. 3 - 7/13/05
 REV. 4 - 9/28/06

PTR BALER AND COMPACTOR CO.



- 1. PRESSURE GAUGE (COLOR) 330766-1
- 2. INLET STRAINER: 311642
- 3. PUMP: 601718
- 4. MOTOR: 602002
- 5. RELIEF VALVE: 330465
- 6. DIRECTIONAL VALVE (4 WAY) 500185
- 7. PRESSURE SWITCH: 312300
- 8. PRESSURE GAUGE: 320068
- 1. PRESSURE GAUGE (COLOR) 330766-1

SYSTEM IS DESIGNED FOR USE WITH
DRYDEN ISO GRADE 46 HYDRAULIC
FLUID OR EQUAL.

APPROX: 15 G.P.M.
USING NO MAX. SYSTEM

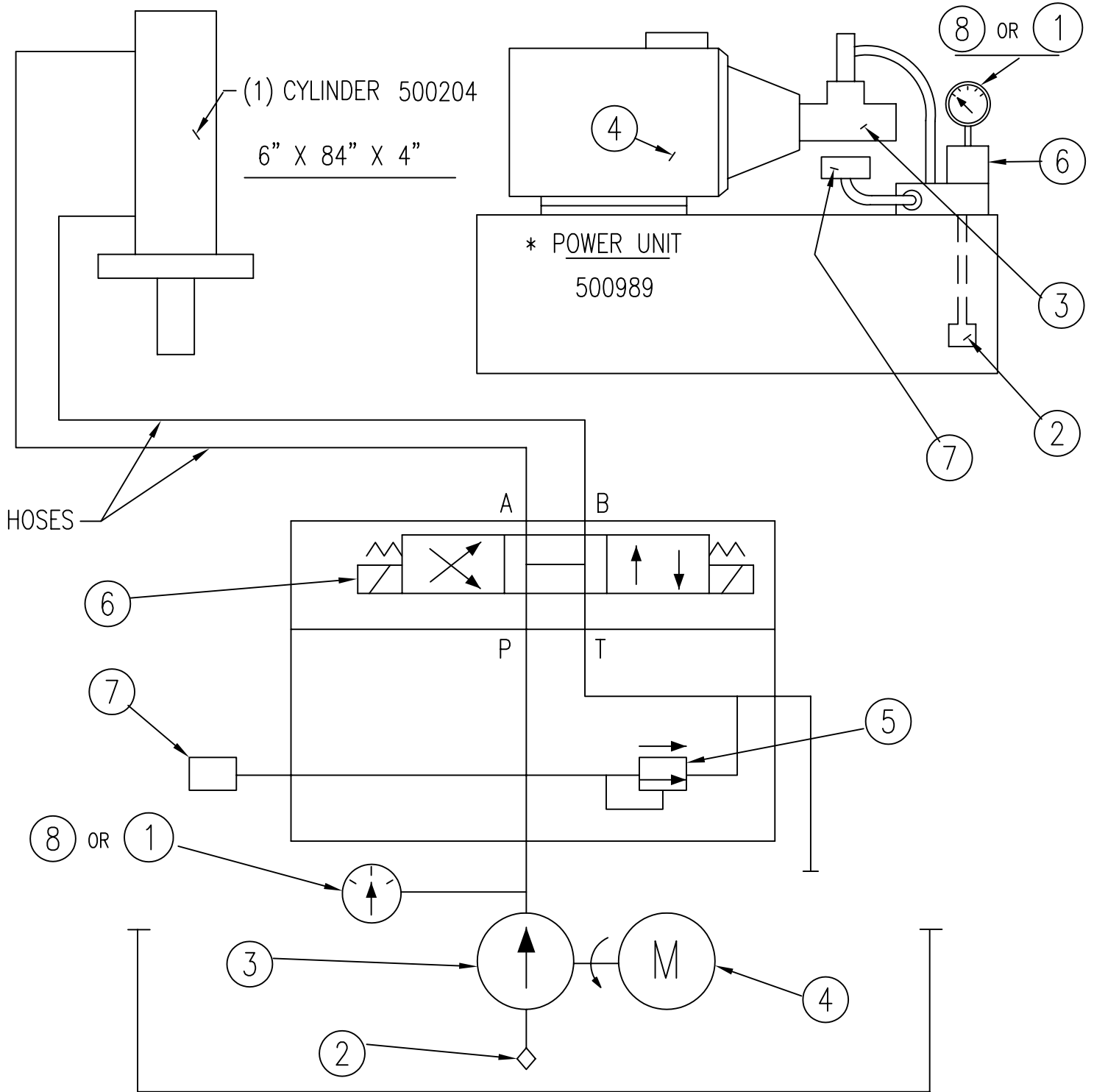
* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

4/27/98
PLF: 1"=1"

TITLE: HYDRAULIC POWER UNIT (TP-2000HD)

DWG. NO: AC3404421

PTR BALER AND COMPACTOR CO.



- | | |
|------------------------------|-----------------|
| 1. PRESSURE GAUGE (COLOR) | <u>330766-1</u> |
| 2. INLET STRAINER: | <u>311642</u> |
| 3. PUMP: | <u>601718</u> |
| 4. MOTOR: | <u>602002</u> |
| 5. RELIEF VALVE: | <u>330465</u> |
| 6. DIRECTIONAL VALVE (4 WAY) | <u>500185</u> |
| 7. PRESSURE SWITCH: | <u>312300</u> |
| 8. PRESSURE GAUGE: | <u>320068</u> |
| 1. PRESSURE GAUGE (COLOR) | <u>330766-1</u> |

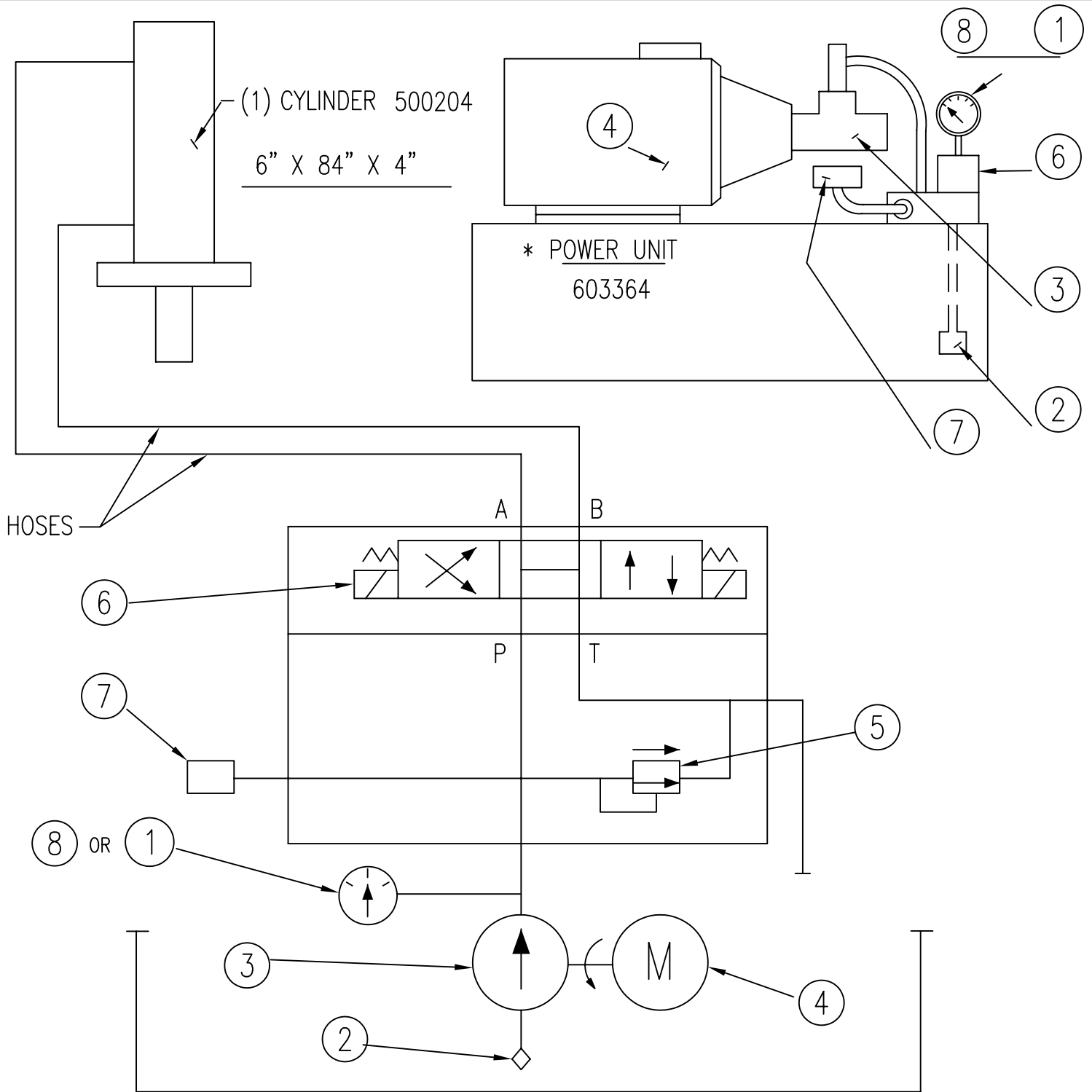
SYSTEM IS DESIGNED FOR USE WITH
DRYDEN ISO GRADE 46 HYDRAULIC
FLUID OR EQUAL.

APPROX: 15 G.P.M.
USING NO MAX. SYSTEM

* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

9/11/06 REV 1
4/27/98
PLATE 1"=1"

PTR BALER AND COMPACTOR CO.



- 1. PRESSURE GAUGE (COLOR) 330766-1
- 2. INLET STRAINER: 311642
- 3. PUMP: 601718
- 4. MOTOR: 602003
- 5. RELIEF VALVE: 330465
- 6. DIRECTIONAL VALVE (4 WAY) 500185
- 7. PRESSURE SWITCH: 312300
- 8. PRESSURE GAUGE: 320068

SYSTEM IS DESIGNED FOR USE WITH
 DRYDEN ISO GRADE 46 HYDRAULIC
 FLUID OR EQUAL.

APPROX: 15 G.P.M.
 USING NO MAX. SYSTEM

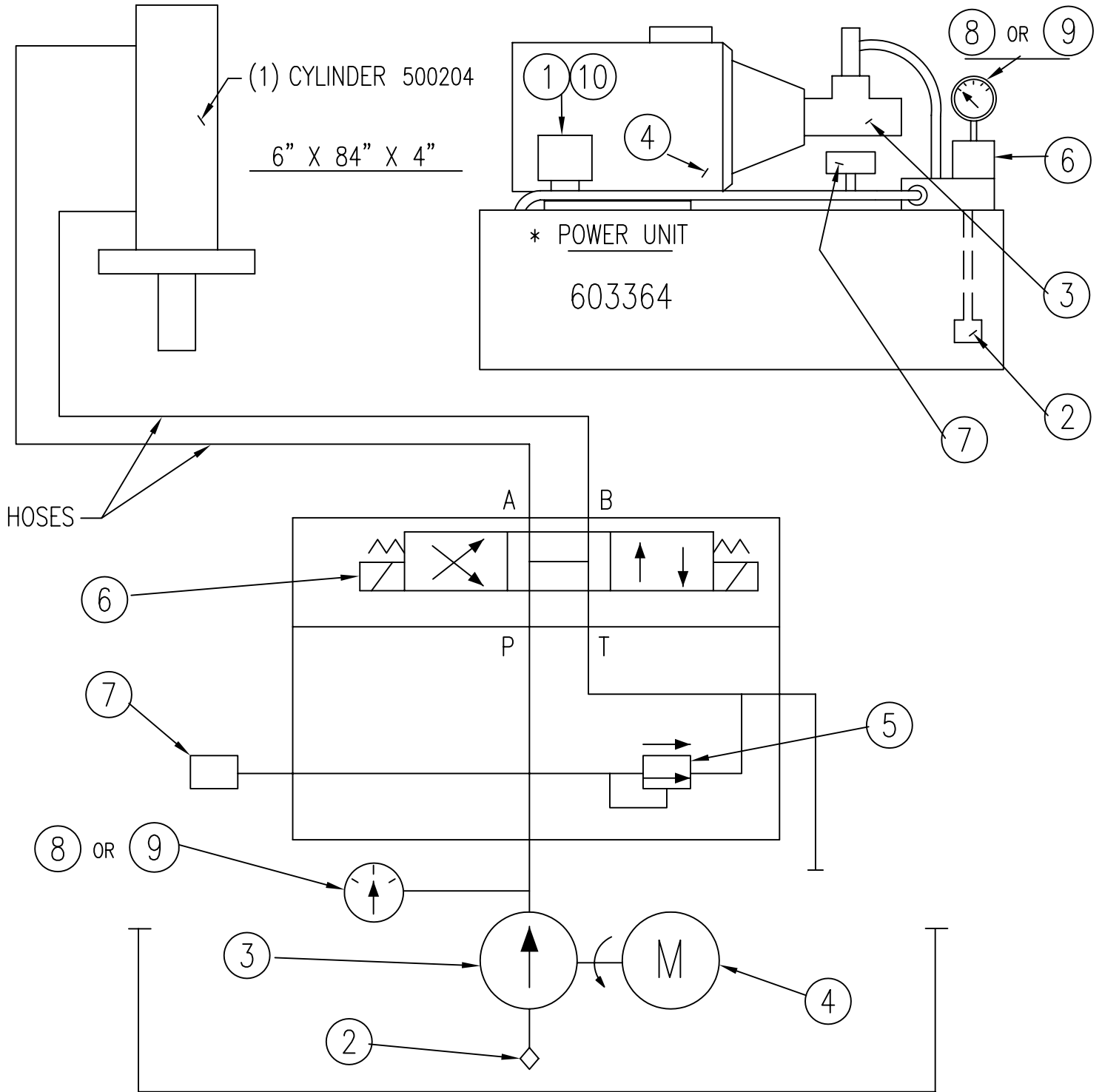
* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER

9/11/06 REV 1
 4/27/98
PLD: 1"=1"

TITLE: HYDRAULIC POWER UNIT (TP-3000HD)

DWG. NO: AC3404401

PTR BALER AND COMPACTOR CO.



| | |
|------------------------------|-----------------|
| 1. FILTER ELEMENT | <u>603416</u> |
| 2. INLET STRAINER: | <u>311642</u> |
| 3. PUMP: | <u>601718</u> |
| 4. MOTOR: | <u>602003</u> |
| 5. RELIEF VALVE: | <u>330465</u> |
| 6. DIRECTIONAL VALVE (4 WAY) | <u>500196</u> |
| 7. PRESSURE SWITCH: | <u>500515</u> |
| 8. PRESSURE GAUGE: | <u>320068</u> |
| 9. PRESSURE GAUGE (COLOR) | <u>330766-1</u> |
| 10. FILTER HEAD | <u>603415</u> |

SYSTEM IS DESIGNED FOR USE WITH
DRYDEN ISO GRADE 46 HYDRAULIC
FLUID OR EQUAL.

APPROX: 15 G.P.M.
USING NO MAX. SYSTEM

* WHEN ORDERING PARTS REFERENCE POWER UNIT NUMBER
FOR UNITS INSTALLED AFTER 6/03

9/28/06

PLD: 1"=1"

TITLE: HYDRAULIC POWER UNIT ASSEMBLY

(TP-4000 HD)

DWG. NO: AC3404393

MAINTENANCE INSTRUCTIONS

LOCKOUT PROCEDURES

1. All affected employees shall be notified that equipment must be shut down and locked out prior to performing service or maintenance.
2. The equipment if operating, shall be shut down by normal means and the energy-isolating device shall be deactivated to isolate the equipment from the energy source. Isolation shall include:
 - a. Removing the key from the key-lock ON/OFF switch
 - b. Installing a tag at the lockout station (disconnect) and on the compactor control panel
 - c. Placing operating equipment in such a position as not to be subject to possible freefall and/or installing additional blocking devices to prevent freefall
 - d. Relieving stored hydraulic or pneumatic pressure, after blocking devices are installed
3. Equipment isolation shall be verified by activating the normal operating controls insuring first that no personnel are exposed (insure operating controls are returned to the neutral or “OFF” position after verifying the isolation of the equipment).
4. When the servicing or maintenance is completed, only after checking that the equipment is ready to operate, insuring that the surrounding area is clear and that employees are safely positioned or removed from the area and verifying that controls are in neutral, shall the lockout devices be removed and the equipment be re-energized.
5. Affected employees shall be notified that the servicing or maintenance has been completed and the equipment is ready for use.
6. See also OSHA 29 CFR 1910.147 Appendix A .

CLEAN OUT PROCEDURES

The authorized service technician performing “Clean Out” work on the Self-Contained and Stationary Compactor must follow the LOCKOUT PROCEDURE described above.

ACCESS COVER

When access covers are removed for any reason, follow “LOCKOUT PROCEDURES” as described above, with the fuses removed by a qualified person.

When replacing access covers, caulk all edges to ensure liquid tight seal.

CONFINED SPACE

Use lockout procedure prior to entry onto CHUTE, DOGHOUSE, HOPPER, or CYLINDER AREA of this unit.

Safety And Periodic Maintenance Inspection

Only periodic maintenance is required to keep your compactor in top operating order.

Maintain oil level so that it rests half way in gauge on the side of tank when ram is fully extended.

The self-contained unit does require lubrication and should be greased every 90 days. The 3/16" grease fittings require ultra light URN MDEP or equal grease and can be found:

- a. In end of all roller axles
- b. In end of all wheel axles
- c. Center of all cylinder mount tubes
- d. In rear door hinge tubes

It is recommended that the cylinder area of your compactor be cleaned twice a year (Spring and Fall). At this time a full safety inspection of entire unit should be performed. After cleaning, check hoses for wear, check cylinders and all hydraulic fittings for oil leaks. Check functionality of all safety interlocks switches and other protective devices daily. Perform full safety inspection of entire unit at least once a year.

Be sure to reseal rear panel with Form A Gasket No.2 Sealant or equal on self-contained units. First remove all of the old sealant residue, and then apply a new continuous bead of Gasket No. 2 Sealant to the inside outer edge of the rear panel before bolting it back in place.

Replace Fuses

Always replace blown fuses with proper amp fuses. After replacing a fuse, always observe operation in an effort to determine what caused the fuse to blow. Refer to Electrical Installation Sheet for size of power fuses.

Oil Change

Over a period of time the oil will become contaminated from dirt and dust. Therefore, it is recommended that the oil be changed every two to three years. At this time, the suction strainer should be removed and cleaned.

If the area around the compactor is particularly dirty and dusty, the reservoir should be drained, the cover removed and the bottom of the reservoir should be thoroughly cleaned about once every three years.

Low temperature oil (5w-20) may be used in areas of the country subject to cold winters. Depending on the severity of the cold weather this oil can be used on its own or in conjunction with an oil heater. Note: The power unit will be marked to indicate low temperature oil if it is factory filled with this type of oil. It is recommended that low temperature oil be changed every one to two years.

COMPACTOR SAFETY CHECKLIST

The following is a SAFETY CHECKLIST for the purpose of keeping the compactor in a safe operating condition.

| A. CHECK THAT ALL SIGNS AND WARNING ARE IN PLACE AND IN GOOD CONDITION. | |
|---|--|
| All access panels must have a warning sign: | "CAUTION - DO NOT REMOVE ACCESS COVER EXCEPT FOR SERVICING. TURN CONTROL PANEL KEYSWITCH TO 'OFF' POSITION & REMOVE KEY" |
| All electrical devices such as control cabinet, motor, etc., where voltage exceeds 120V must have warning: | "DANGER — HIGH VOLTAGE" |
| Near any opening where a person can enter or reach into: | "CAUTION — KEEP OUT" |
| Inside an area such as a hopper or chute: | "DANGER — DO NOT ENTER" |
| At all security doors: | "CAUTION — CLOSE SECURITY DOOR" |
| At all openings for feeding material: | "CAUTION — DO NOT OPERATE COMPACTOR WHILE FEEDING" |
| B. CHECK THE FOLLOWING CONTROL FUNCTIONS FOR PROPER OPERATION | |
| On/Off Keyswitch | Man/Auto Selector Switch |
| For/Rev. Pushbutton Selector | Cycle Start Button |
| Stop Button | Full Light |
| Other | |
| C. SECURITY DOOR AT CHUTE | |
| If compactor has a chute, the feeding opening must have a security door interlocked to stop operation of the compactor when the security door is open. | |
| Chute has a security door. | Chute door is a walk up style. |
| Security door has electrical interlock. | Security door has mechanical interlock. |
| During AUTO Operation, open the security door. Ram stops when security door is open. | |
| D. OVERALL SAFETY REQUIREMENTS AND PHYSICAL APPEARANCE | |
| Mainline disconnect switch must be located so that it can be seen from the compaction end of the compactor. | |
| Direct feeding compactor where the loading height is less than 42 inches must have: | |
| (a) Dead-man controls, with the control panel located in such a way that the operator cannot reach the loading zone pinchpoint area. | |
| (b) The installation of a point-of-operation guard that shall: prevent entry of hands, fingers, or any part of the body into the point of operation; in itself, create no pinch point between the guard and moving stationary compactor parts; offer maximum visibility of the point of operation consistent with other requirements; be interlocked in such a manner that the stationary compactor cannot be operated if the point of operation guard is removed; and be easily accessible for inspection and maintenance. | |
| Compactor complies with above. | |
| Direct feed compactors having automatic cycling, must have an access cover to close off the opening, interlocked so that when the cover starts to open, the automatic cycling mode will not function. | |
| E. Clean up area around compactor. If a compactor has an unusual amount of refuse lying around the area, this could constitute a hazard as to health and possibly accidents due to slipping or tripping. Such conditions should be reported to management. | |
| Clean up of area is necessary | |
| Voltage | Thur wall kit condition Cylinder & Pin Size |
| Hinge Side | Condition of Chute Condition of Compactor, i.e. rust & paint |
| Pad Size & Condition | Condition of Hoses, especially by ground |
| Mfg. | |
| Model No. | Serial No. |
| Serviceman's Signature | Date |
| Customer's Signature | Date |

**PREVENTATIVE MAINTENANCE CHECKLIST
BALER AND COMPACTORS**

MFG. _____

DATE _____ JOB NO. _____

MOD. NO. _____

STORE NO. _____ LOC. _____

SER. NO. _____

CUSTOMER _____

ELECTRICAL

- | | Comp. | Baler |
|--|-------|-------|
| 1. Control Box | | |
| A. Fuse Clips tight | () | () |
| B. All term. tight | () | () |
| C. Magnetic starter contacts for pitting & wear | () | () |
| D. Breakers not sticking | () | () |
| 2. All wire and cable free from breaks & wear on insul. & properly secured | () | () |
| 3. Check all relays for proper position and continuity | () | () |
| 4. All switch buttons/selectors tight and properly aligned | () | () |
| 5. Check & Inspect | | |
| A. Reset button on starter | () | () |
| B. Up-stop Limit | () | () |
| C. Main door limit | () | () |
| D. Safety door limit | () | () |
| E. Pressure switch | () | () |
| F. Check auto size timer | () | () |
| G. Security door switch | () | () |
| H. Gate interlock box | () | () |
| I. Ram safety limit switch | () | () |

HYDRAULIC & MECHANICAL

- | | Comp. | Baler |
|------------------------------|-------------|-------|
| 1. Oil Level | () | () |
| 2. Condition of Oil | () | () |
| 3. Cylinder Connections | () | () |
| A. Directional Valve | () | () |
| B. Top Valve | () | () |
| C. Valve Connections | () | () |
| 4. Pressure Setting | () | () |
| A. Pressure settings | — () () — | |
| B. Relief settings | — () () — | |
| 5. Line or hose clamps | () | () |
| 6. Motor/pump coupling | () | () |
| 7. Cylinder Seals | | |
| A. Gland - Leaky | () | () |
| B. Gland - Loose | () | () |
| 8. Hose Connections | () | () |
| 9. Grease Fittings | () | () |
| 10. Main Door Hinge | () | () |
| 11. Cylinder/Crown Bolts | () | () |
| 12. Pressure Gauge Condition | () | () |

STRUCTURAL

- | | Comp. | Baler |
|-----------------------------------|-------|-------|
| 1. Physical Appearance | | |
| A. Paint | () | () |
| B. Rubber Filler around chute | () | () |
| C. Area clear of foreign material | () | () |
| 2. Frictional Parts | | |
| A. Excessive wear | | |
| 1. Bailing Chamber | () | () |
| 2. Ram Guides | () | () |
| 3. Lift Gate Tracks | () | () |
| 4. Slide Cover | () | () |
| B. Lubricate | | |
| 1. Gate Track | () | () |
| 2. Inner walls | () | () |
| 3. Ram | () | () |
| 4. Door Hinges | () | () |
| 5. Security Hinges | () | () |
| 6. Safety gate | () | () |
| 7. Container wheels | () | () |
| 8. Cylinder pins | () | () |
| 3. Bale Ejector | | |
| A. Hooks | () | () |
| B. Cables | () | () |
| C. Welded eye | () | () |
| D. Retainers | () | () |
| E. Chains | () | () |
| 4. Loose Parts | | |
| A. Lock-nuts on gate arms | () | () |
| B. Safety on door handle | () | () |
| 5. Door Linkage | | |
| A. Pin bracket engagement | () | () |
| B. Tighten if necessary | () | () |
| 6. Ratchet Binders | () | () |
| 7. Hooks | () | () |

COMMENTS: _____

Serviceman's Signature _____

Store Manager's Signature _____

Date _____

- A Adjusted
- ✓ O.K.
- o Replacement Required
- x Replaced
- () Does not apply

DOGHOUSE ON UNITS

With this method the refuse is fed through a doghouse located over the charging opening.

- A. **Disconnect** - the mainline disconnect switch must be located either on the compactor or on a wall adjacent to the compactor, but in no case more than 15' from the charging opening and always within view of an operator feeding the compactor.

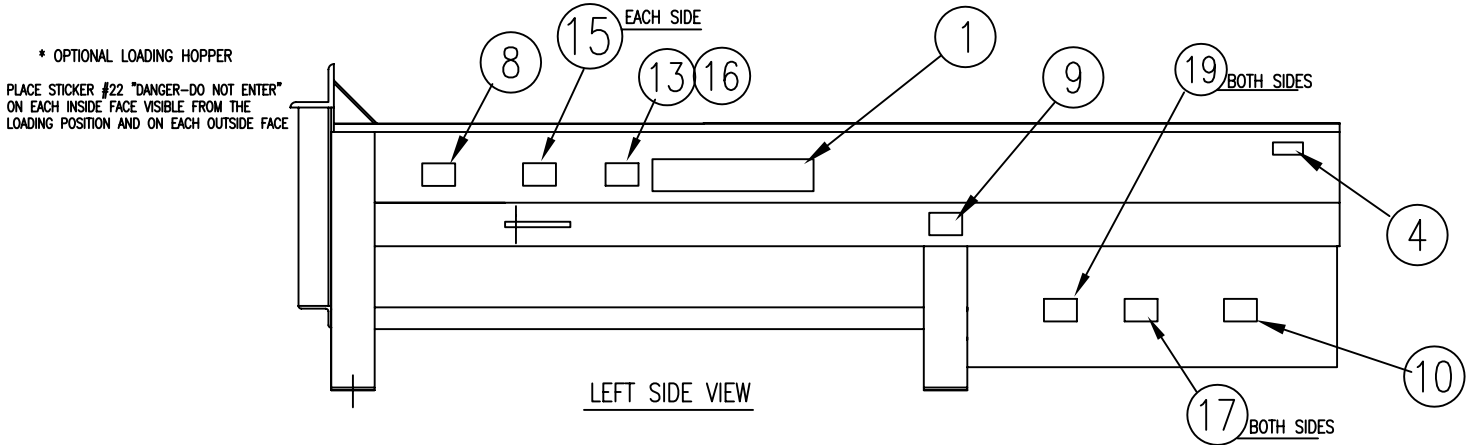
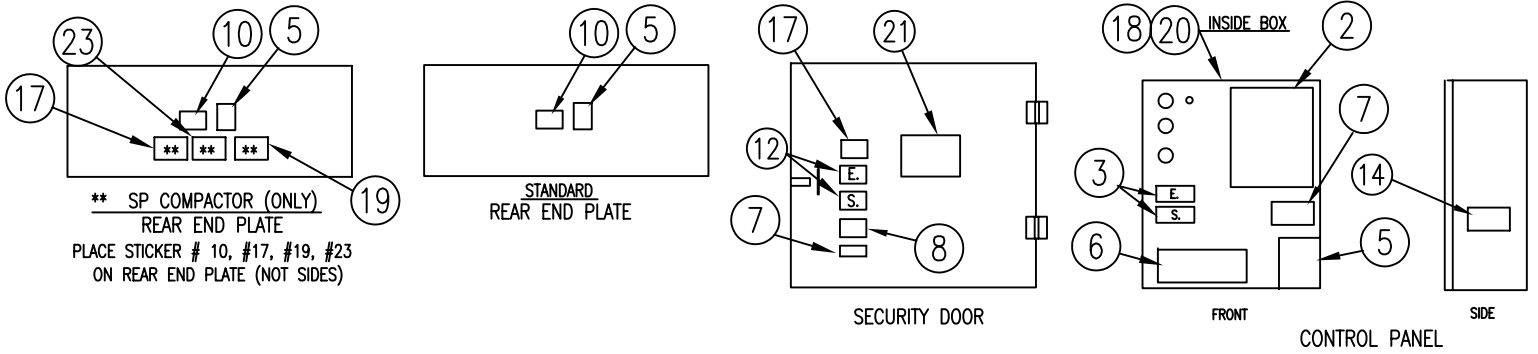
The control station including the **Emergency Stop Button** must be located within 3' of the doghouse charging opening so that the operator can operate the controls and at the same time see the entire operation.

Warning Decals and Instruction Plates

Read and follow the warning instructions of each decal, it is for the operators' safety that each decal is in place. Make certain that each decal is obeyed at all times. Notify the proper authority of any missing decal. Replacements can be ordered from:

PTR Baler and Compactor Company
2207 E. Ontario Street
Philadelphia, PA 19134
(800) 523-3654
(800) 523-1155
(215) 533-5100
(215) 537-8536 - Fax

PTR BALER AND COMPACTOR CO.

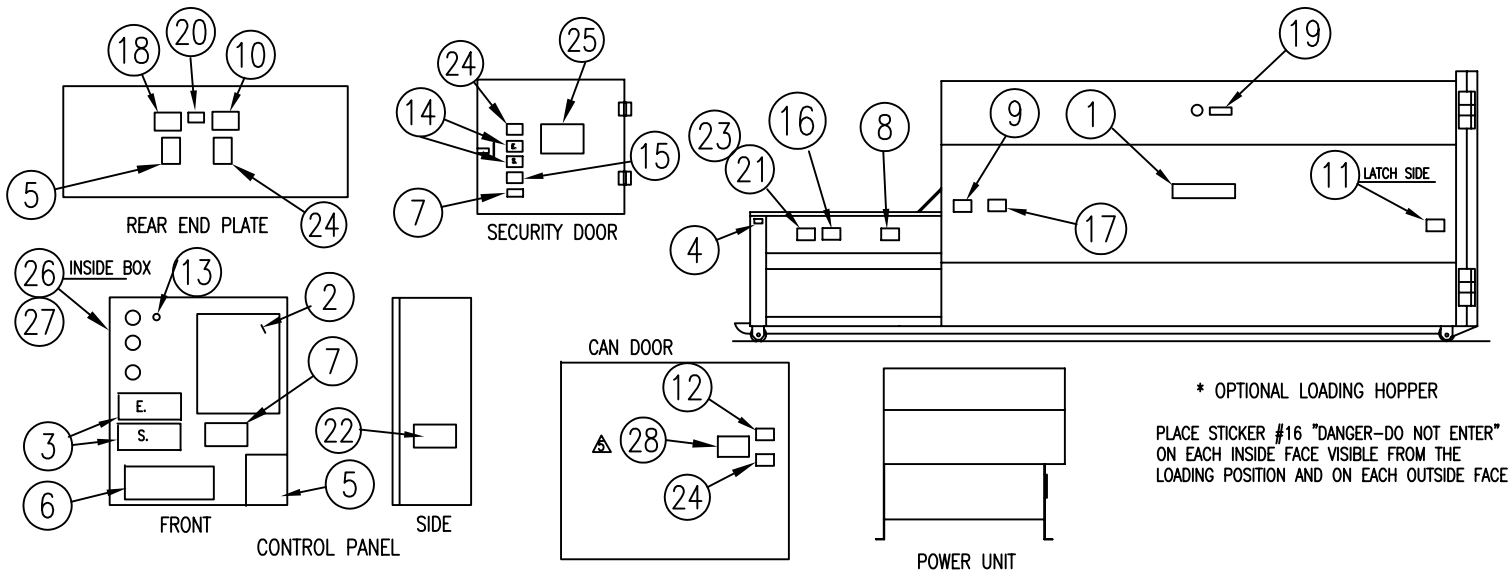


| NO. | QTY. | DESCRIPTION | PART NO. |
|-----|------|--|----------|
| 1 | 2 | PHILADELPHIA TRAMRAIL CO. | 602086 |
| 2 | 1 | OPERATING INSTRUCTION PLATE | 330910 |
| 3 | 1 | DANGER HIGH VOLTAGE (ENGLISH & SPANISH) | 500644 |
| 4 | 3 | PHILADELPHIA TRAMRAIL CO. SERIAL NO. | 500867 |
| 5 | 2 | "DANGER" BEFORE AND DURING ANY MAINTENANCE, TESTING, AND/OR ELECTRICAL CONNECTING, MOVE DISCONNECT SWITCH TO OFF POSITION AND PADLOCK.-PLACE A WARNING TAG ON THE DISCONNECT SWITCH AS FOLLOWS: WARNING-DO NOT ENERGIZE WITHOUT THE PERMISSION OF- | 500576 |
| 6 | 1 | VOLTAGE/AMPS INFO. | 154377 |
| 7 | 2 | 24 HR. SERVICE ETC. | 311658 |
| 8 | 3 | CAUTION-DO NOT OPERATE COMPACTOR WHILE FEEDING MAT'L | 330906 |
| 9 | 2 | THIS COMPACTOR MEETS ALL ANSI Z245.2-1997 SAFETY & PERF | 500271 |
| 10 | 3 | DO NOT REMOVE ACCESS COVER- EXCEPT FOR SERVICING | 330901 |
| 11 | 1 | GROUND DECAL | 500610 |
| 12 | 1 | CAUTION-CLOSE SECURITY DOOR AND LATCH BEFORE OPERATING COMPACTOR | 330905 |
| 13 | 1 | UL (CONTROLLED) | 500534 |
| 14 | 1 | SERVICE AND PARTS DECAL | 500153 |
| 15 | 2 | WARNING - BEFORE ENGAGING ---- RATCHET BINDERS --- | 500724 |
| 16 | 1 | CE (CONTROLLED) | 401378 |
| 17 | 3 | "CAUTION" CONFINED SPACE - USE LOCKOUT / TOG OUT | 401740 |
| 18 | 1 | MAX. FUSE 2.0 AMP. | 320063 |
| 19 | 2 | WARNING- CLEAN ENCLOSED AREA--- | 401759 |
| 20 | 1 | MAX. FUSE 2.5 AMP. | 500745 |
| 21 | 1 | "WARNING" NO EMPLOYEE UNDER 18 ---- | 602451 |
| 22 | * | DANGER - DO NOT ENTER | 500581 |
| 23 | ** | DANGER-NEVER ENTER AREA INSIDE THE MACHINE BEHIND THE RAM-ALL SERVICE WORK CAN BE PERFORMED FROM | 500583 |

MXP NUMBER = 340335

REV 4 8-22-06
REV 3 4-15-04
10/7/03
9/4/01

PTR BALER & COMPACTOR CO.



| NO. | QTY. | DESCRIPTION | PART NO. |
|------|------|--|----------|
| 1 | 2 | PHILADELPHIA TRAMRAIL CO. | 602086 |
| 2 | 1 | OPERATING INSTRUCTION PLATE | 330910 |
| 3 | 1 | DANGER HIGH VOLTAGE (ENGLISH & SPANISH) | 500644 |
| 4 | 2 | PHILADELPHIA TRAMRAIL CO. SERIAL NO. | 500867 |
| 5 | 2 | "DANGER" BEFORE AND DURING ANY MAINTENANCE, TESTING, AND/OR ELECTRICAL CONNECTING, MOVE DISCONNECT SWITCH TO OFF POSITION AND PADLOCK.-PLACE A WARNING TAG ON THE DISCONNECT SWITCH AS FOLLOWS: WARNING-DO NOT ENERGIZE WITHOUT THE PERMISSION OF- | 500576 |
| 6 | 1 | VOLTAGE/AMPS INFO. .2-1990 SAFETY & PERF | 154377 |
| 7 | 2 | 24 HR. SERVICE ETC. | 311658 |
| 8 | 2 | CAUTION-DO NOT OPERATE COMPACTOR WHILE FEEDING MAT'L | 330906 |
| 9 | 2 | THIS COMPACTOR MEETS ALL ANSI Z245.2-1997 SAFTY & PERF. | 500271 |
| 10 | 1 | DO NOT REMOVE ACCESS COVER- EXCEPT FOR SERVICING | 330901 |
| 11 | 1 | WIPE SEAL AFTER DUMPING | 500289 |
| 12 | 1 | STAND CLEAR WHEN OPENING DOOR | 500290 |
| 13 | 1 | GROUND | 500610 |
| 14 | 1 | CAUTION-CLOSE SECURITY DOOR AND LATCH BEFORE OPERATING COMPACTOR | 330905 |
| 15 | 3 | CAUTION-DO NOT OPERATE COMPACTOR | 330906 |
| 16 | 2* | DANGER-DO NOT ENTER | 500581 |
| 17 | 1 | CAUTION-STAND CLEAR WHEN CONTAINER IS LIFTED | 500582 |
| 18 | 1 | DANGER - NEVER ENTER AREA INSIDE THE MACHINE BEHIND THE RAM-ALL SERVICE WORK CAN BE PERFORMED FROM OUTSIDE THE REAR ACCESS PLATE. | 500583 |
| 19 | 1 | FIRE HOSE PORT | 500584 |
| 20 | 1 | CLEAN CYLINDER AREA EVERY 6 MONTHS | 500554 |
| 21 | 1 | UL (CONTROLLED) | 500534 |
| 22 | 1 | 24 HOUR SERVICE DECAL | 500153 |
| 23 | 1 | CE (CONTROLLED) | 401378 |
| 24 | 3 | CONFINED SPACE - USE LOCKOUT/TAG OUT | 401740 |
| 25 | 1 | "WARNING" NO EMPLOYEE UNDER 18 yrs.---- | 602451 |
| 26 | 1 | MAX. FUSE 2.0 AMP. | 320063 |
| 27 | 1 | MAX. FUSE 2.5 AMP. | 500745 |
| △ 28 | 1 | "CAUTION" DO NOT REMOVE THIS CONTAINER UNTIL HOSES..... | 603764 |

MXP NUMBER = 340339

MJM REV 5 9-29-06
REV 4 8-23-06
REV 3 4-15-04
10/7/03
9/4/01

TITLE: DECAL & INFO.-PL., TYPE, & LOCATION

SELFCONTAINED

DWG. NO: AC3403395

WARRANTY

PTR BALER AND COMPACTOR COMPANY warrants that all new machinery and equipment manufactured, and sold, by it, except as hereinafter set forth, when operated, maintained and installed, and used in normal service and in accordance with provisions of the operator's manual in which this warranty is expressly included and made a part of, that for a period of three hundred sixty-five (365) days from and after the date of installation, said equipment, in whole or in part, will be free from defects in material and workmanship.

The responsibility of PTR BALER AND COMPACTOR COMPANY, under this warranty to the purchaser, except as to title, shall not in any case exceed the cost of correcting defects in the equipment of part thereof, except as hereinafter set forth. Warranty repair or replacements shall not extend in any instance beyond the initial warranty period.

PTR BALER AND COMPACTOR COMPANY shall under no circumstances be responsible for any loss of business or profit to the purchaser or any other consequential damages in connection with the sale of such equipment or any obligation under this warranty. The foregoing shall constitute the sole remedy of the purchaser, and the responsibility of PTR BALER AND COMPACTOR COMPANY.

Warranty repairs and/or replacements (at our option), will be made for both parts and labor. The authorized service center must use PTR BALER AND COMPACTOR authorized parts. Labor will be allowed at a maximum of thirty (\$40.) hourly rate. Premium rates will be at the customer's accountability.

All parts, components or accessories requiring repair or replacement, within the warranty period, shall be returned PREPAID, to the PTR BALER AND COMPACTOR COMPANY at the expense of the buyer, lessee, or consignee. The PTR BALER AND COMPACTOR COMPANY will return at its expense replacement parts, components or accessories found to be defective. Shipment of parts under warranty shall be made via United Parcel Service or Parcel Post. Cost of any other means or transportation shall be paid by the equipment user.

PTR BALER AND COMPACTOR COMPANY does not assume any responsibility of liability for improper use of the equipment or improper installation of any unit, part or accessory which may cause damage to the unit. The installation of parts or accessories manufactured or sold by any other supplier shall be deemed to void all warranties.

Warranty claims for equipment will not be processed unless a properly completed and signed warranty card (attached to the installation checklist) has been received. NOTE: Always have Serial Number and Model Number of unit ready when calling for service

NON-WARRANTABLE REPAIRS

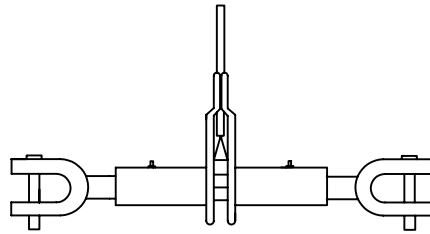
1. Adjustments required as the result of routine operations; limit switches, pressure switch. relief valve.
2. Tightening of hydraulic fittings and terminal connections
3. Electrical fuses (Tripped overloads or breakers, etc.)
4. Power to the unit (Changing phase, motor rotation, or damage by customer hooking-up electric, etc.)
5. Addition of hydraulic oil
6. Repairs necessitated by improper use, failure to follow instructions, and abuse of the equipment
7. Proper authorization from PTR Baler and Compactor Company
8. Operator error (door not closed and /or latched etc.)
9. Damage or error from hauler
10. Installer error, and/or customer site problems at time of installation.

Some more common replacement parts

| PTR Number | Description |
|-------------------|--------------------------|
| 500196 | C4 Control Valve |
| 155529 | C7 Control Valve |
| 603198 | Contactora, 22A |
| 603196 | Contactora, 40A |
| 603200 | Contactora, 75A |
| 603520 | Fuse, 1.5A Time-Delay |
| 320209 | Fuse, 2 amp 250V |
| 500528 | Fuse, 2 amp 600V |
| 155408 | Key, On/Off Switch |
| 320046 | Limit Switch |
| 320045 | Limit Switch Arm |
| 603199 | Overload, 20A |
| 603197 | Overload, 40A |
| 603201 | Overload, 80A |
| 500515 | Pressure Switch |
| 155393 | Relay base, 11-pin |
| 155392 | Relay, 11-pin |
| 602391 | Relay, Programmable |
| 500041 | Safety Interlock |
| 500822 | Safety Interlock HD only |
| 630223 | Service Manual |
| 500555 | Timer |

PTR BALER AND COMPACTOR CO.

| MODEL | NO. | DESCRIPTION | PART NO |
|------------------------|-----|----------------|---------|
| TP-2000E TO TP-4000 | 1 | RATCHET BINDER | 500128 |
| TP-750 | 2 | RATCHET BINDER | 500175 |
| PT-200, PT-300, PT-350 | 3 | RATCHET BINDER | 500175 |



| MODEL | NO. | DESCRIPTION | PART NO |
|-------|-----|-------------|---------|
|-------|-----|-------------|---------|

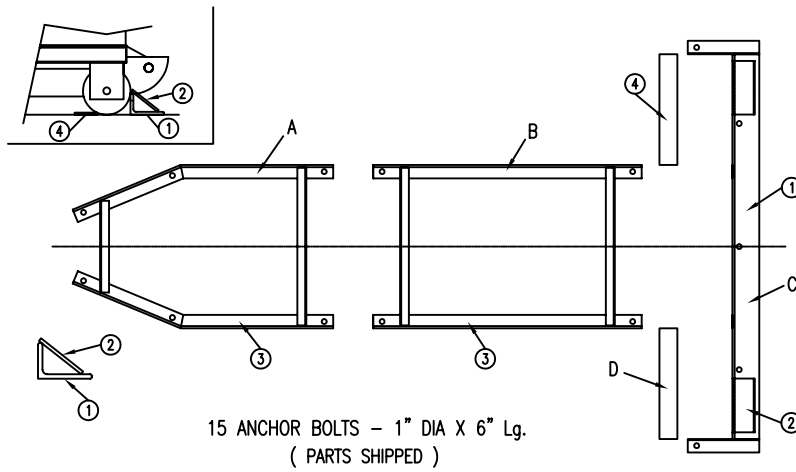
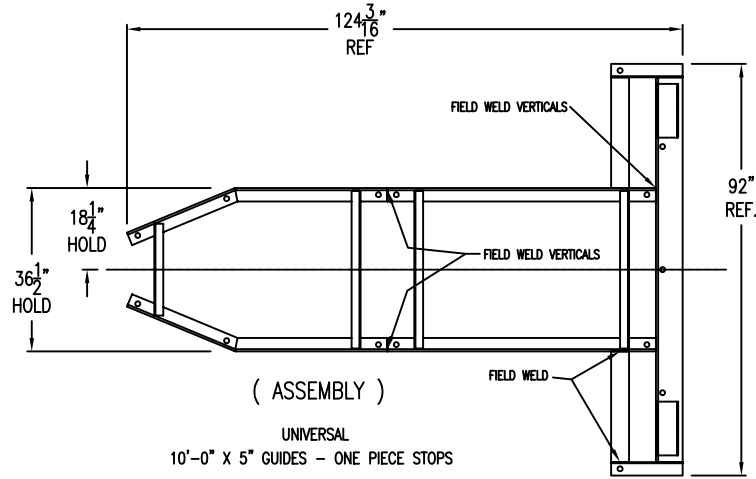
| | | | |
|--------|---|--|--------|
| TP-750 | 1 |  | 330510 |
|--------|---|--|--------|

| | | | |
|---------------------|---|--|--------|
| TP-2000E TO TP-4000 | 2 |  | 500132 |
|---------------------|---|--|--------|

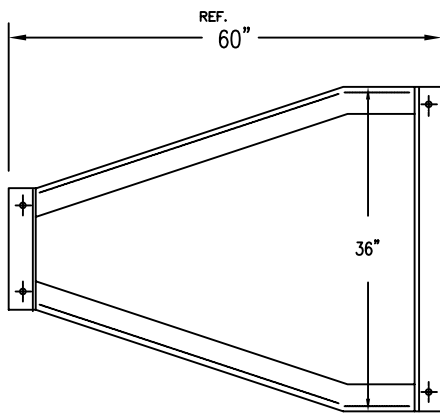
| | | | |
|---------------------|---|--|--------|
| TP-2000E TO TP-4000 | 3 |  | 400874 |
|---------------------|---|--|--------|

8/1/96

PTR BALER AND COMPACTOR CO.

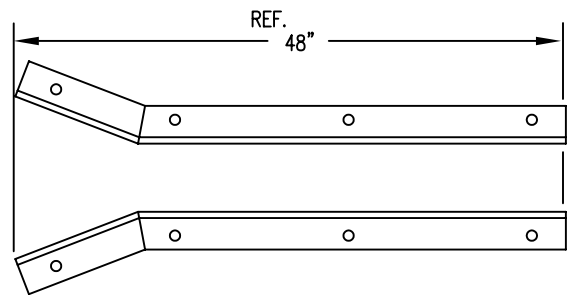


10'-0" GUIDE ISLAND — 401701



4 ANCHOR BOLTS - 1" DIA. X 6" Lg.
(PARTS SHIPPED)

5'-0" GUIDE ISLAND — 330630

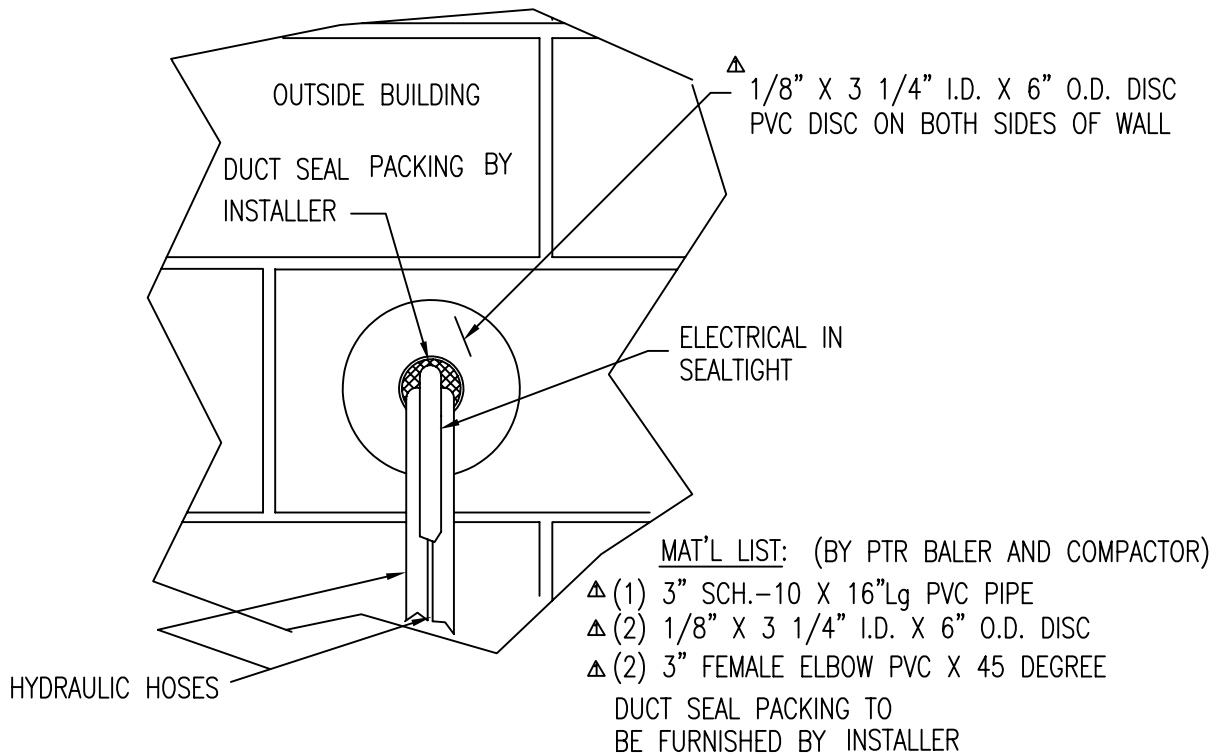
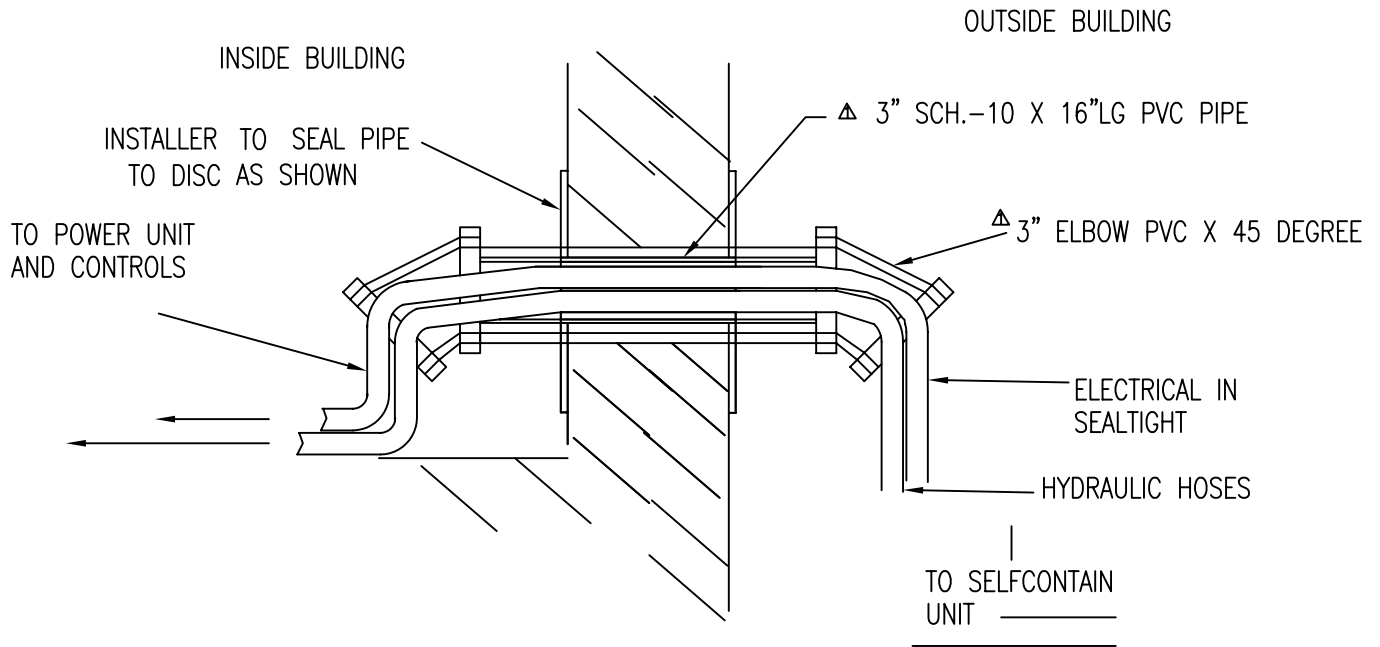


8 ANCHOR BOLTS - 1" DIA. X 6" Lg.
(PARTS SHIPPED)

4'-0" GUIDE ISLAND — 400972

7/15/99
Rev. 1 - 12/19/01

PTR BALER AND COMPACTOR

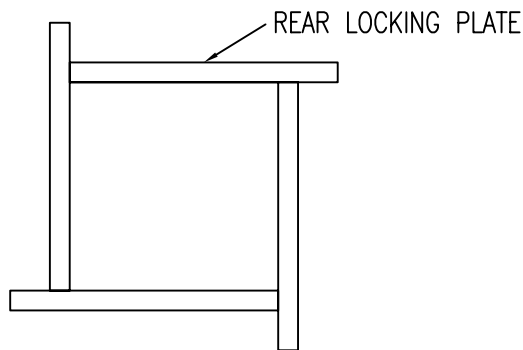
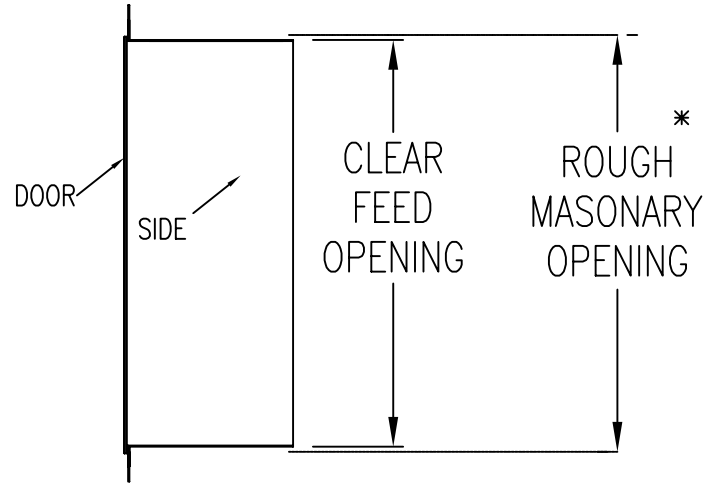
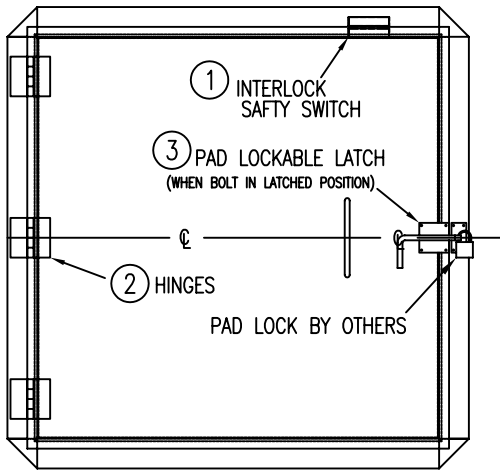


TYPICAL INSTALL, MAY BE MODIFIED TO SPECIFIED NEEDS

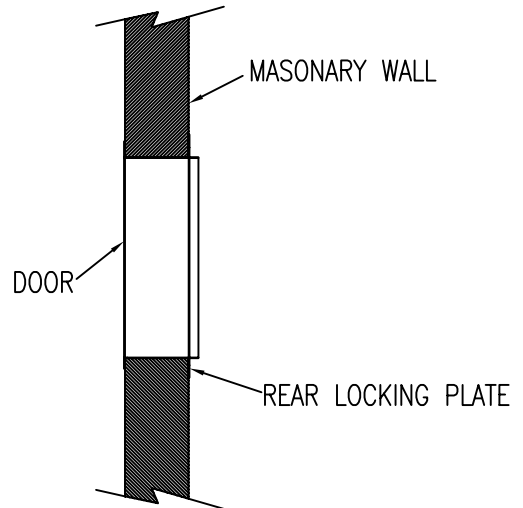
REV-1 = 7/17/06

PTR BALER AND COMPACTOR

SECURITY DOOR & FRAME



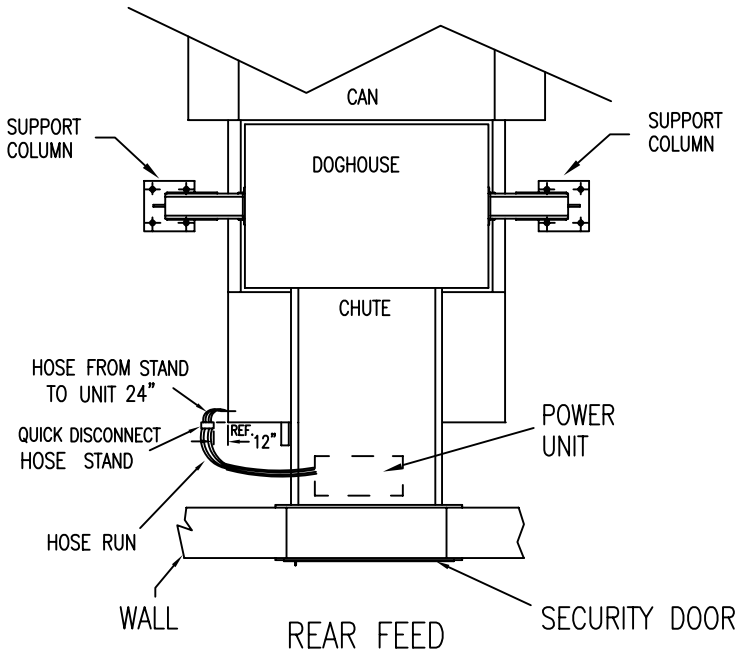
TO BE ASSEMBLED IN THE FIELD
IN THE MANNER SHOWN, LET
EXCESS HANG OVER



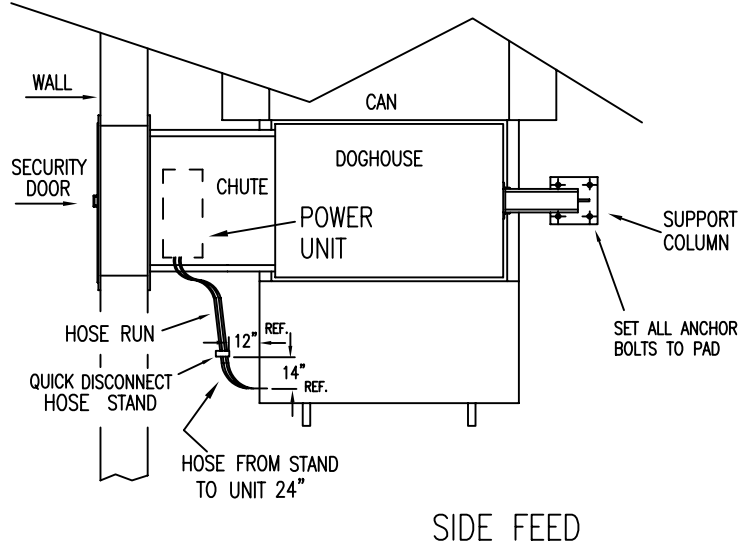
* NOTE: DOOR IS SIZED BY ROUGH MASONRY OPENING. FOR EXAMPLE, A 42" X 42" SECURITY DOOR WOULD FIT A 42" SQ. WALL OPENING AND HAVE A CLEAR FEED OPENING OF APPROXIMATELY 41" X 41"

| NO. | QTY. | DESCRIPTION | PART NO. |
|-----|------|-------------------------|----------|
| 1 | 1 | INTERLOCK SAFETY SWITCH | 500041 |
| 2 | 3 | 3 1/2" X 3 1/2" HINGE | 330771 |
| 3 | 1 | LATCH | 500903 |
| 4 | | | |
| 5 | | | |

PTR BALER AND COMPACTOR CO.



TOP VIEW

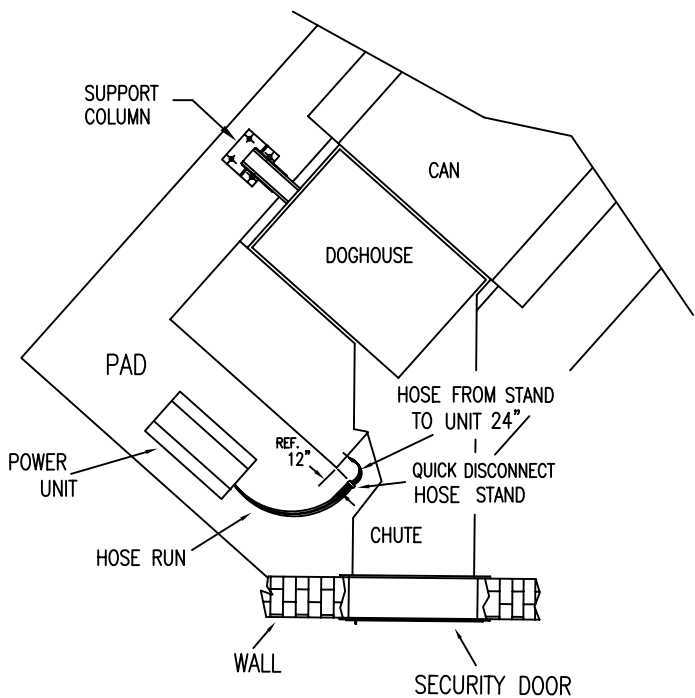


SIDE FEED

TOP VIEW

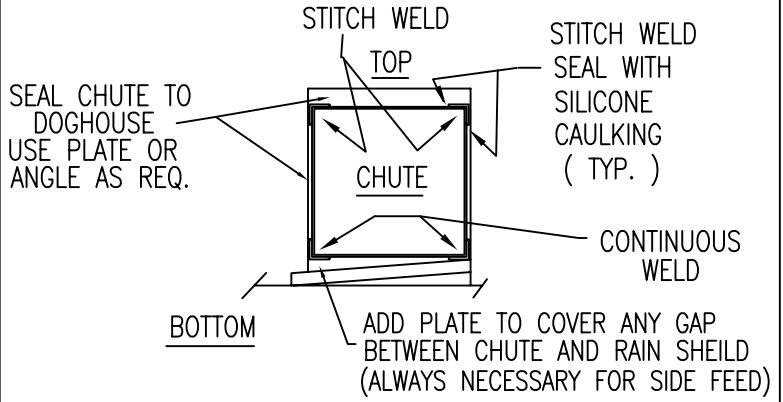
NOTES: 1) THERE IS TO BE 24" OF HOSE FROM THE HOSE STAND TO THE DISCONNECTS.

2) ANY GAP BETWEEN THE CHUTE BOTTOM AND DOGHOUSE RAIN SHIELD MUST BE FILLED AND SEALED.

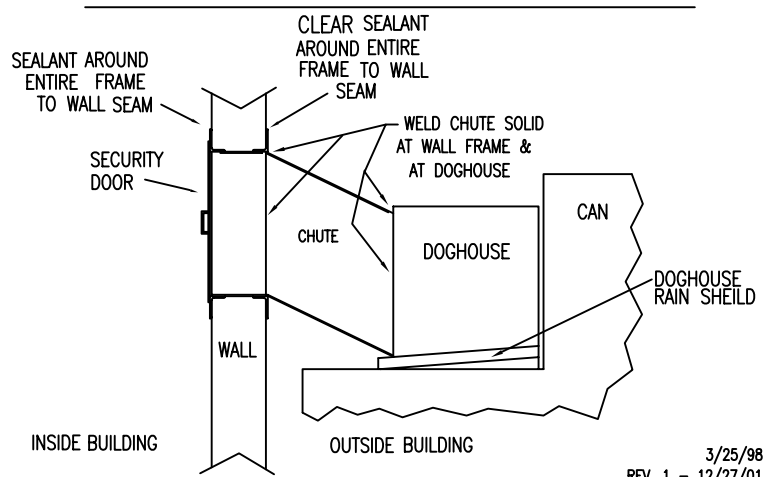


TOP VIEW

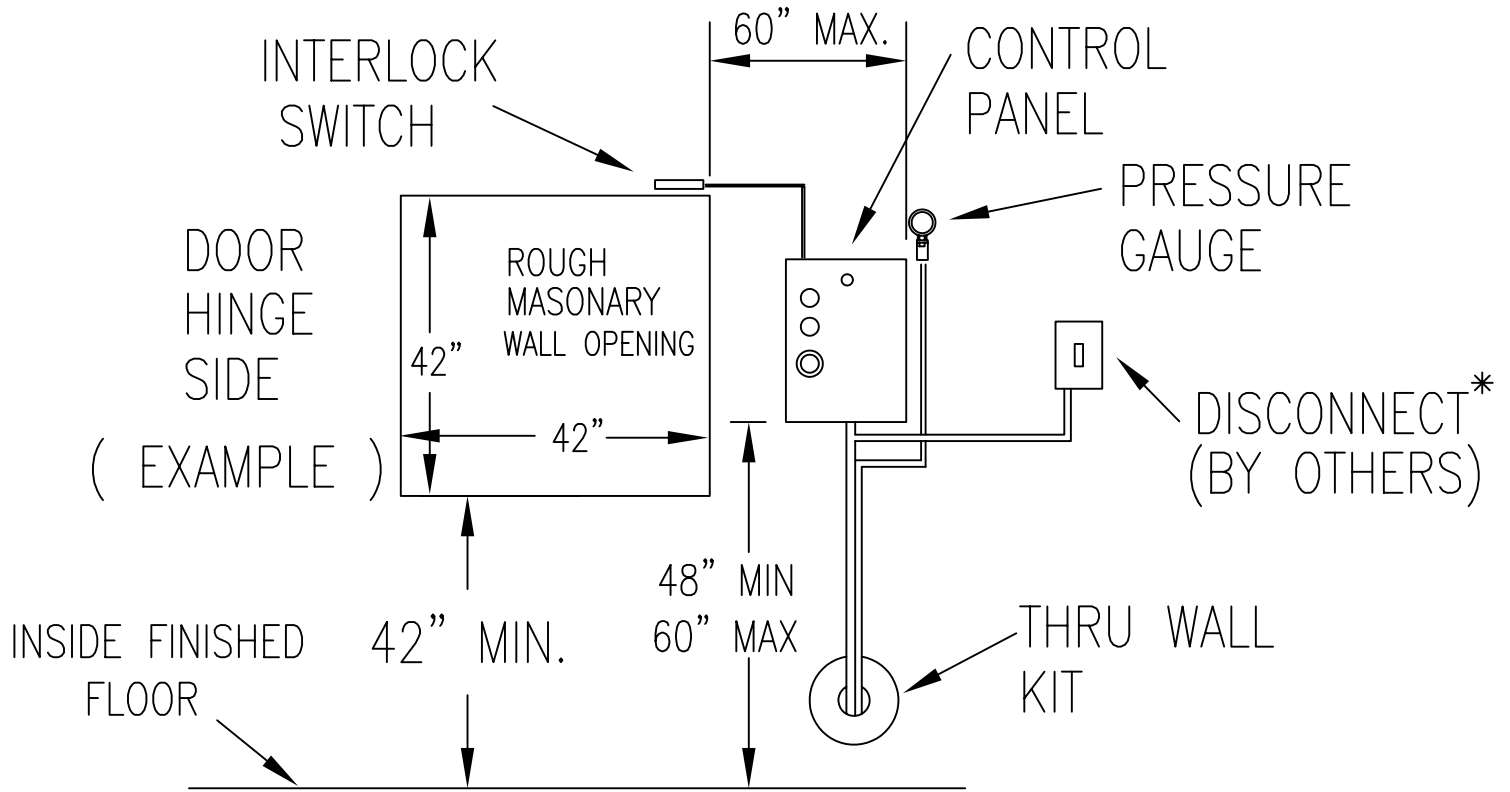
ANGLED FEED



WELDING AND SEALANT REQUIREMENTS

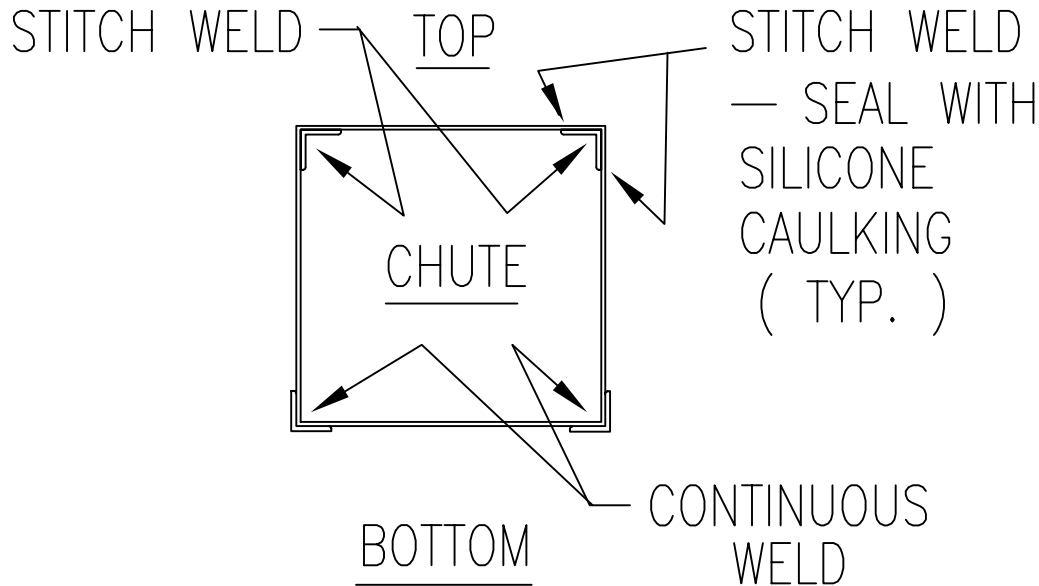


PTR BALER AND COMPACTOR CO.



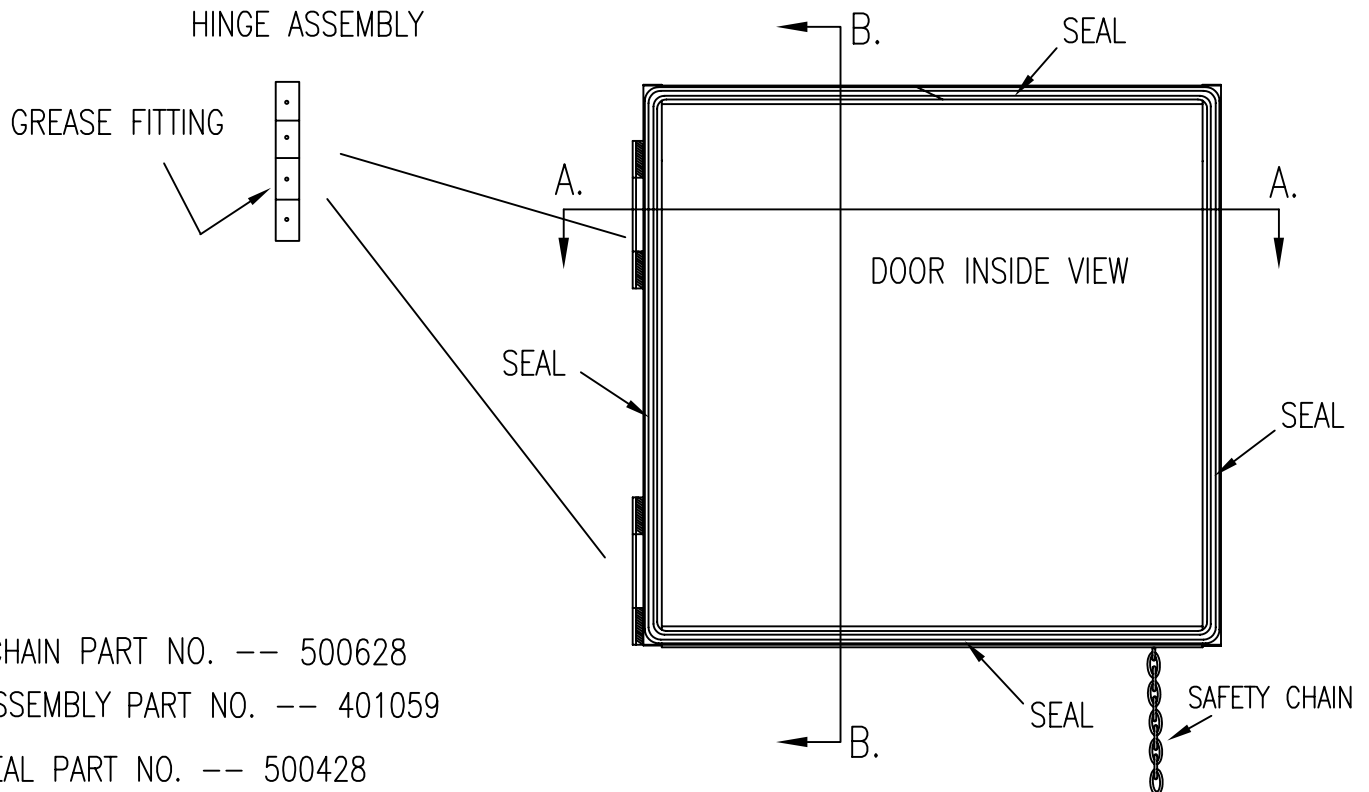
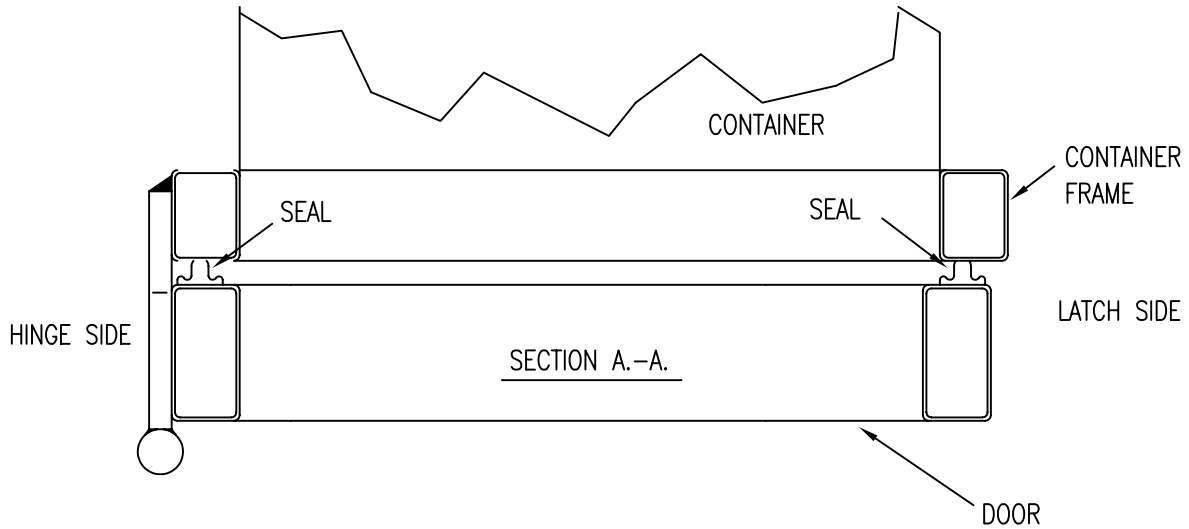
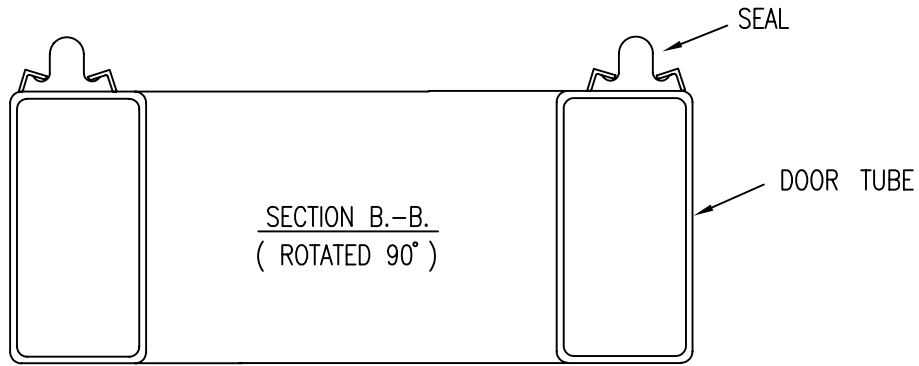
* PLEASE REFER TO LOCAL, STATE, AND FEDERAL ELECTRICAL CODES REGARDING DISCONNECT PLACEMENT

BY ANSI 245.2 - An electrical power disconnect shall be located within sight of, and no more than 50 ft (15 m) away from the main control panel.



FLARE CHUTE OUTWARD TOWARD COMPACTOR
MUST NOT FUNNEL

PTR BALER AND COMPACTOR CO.

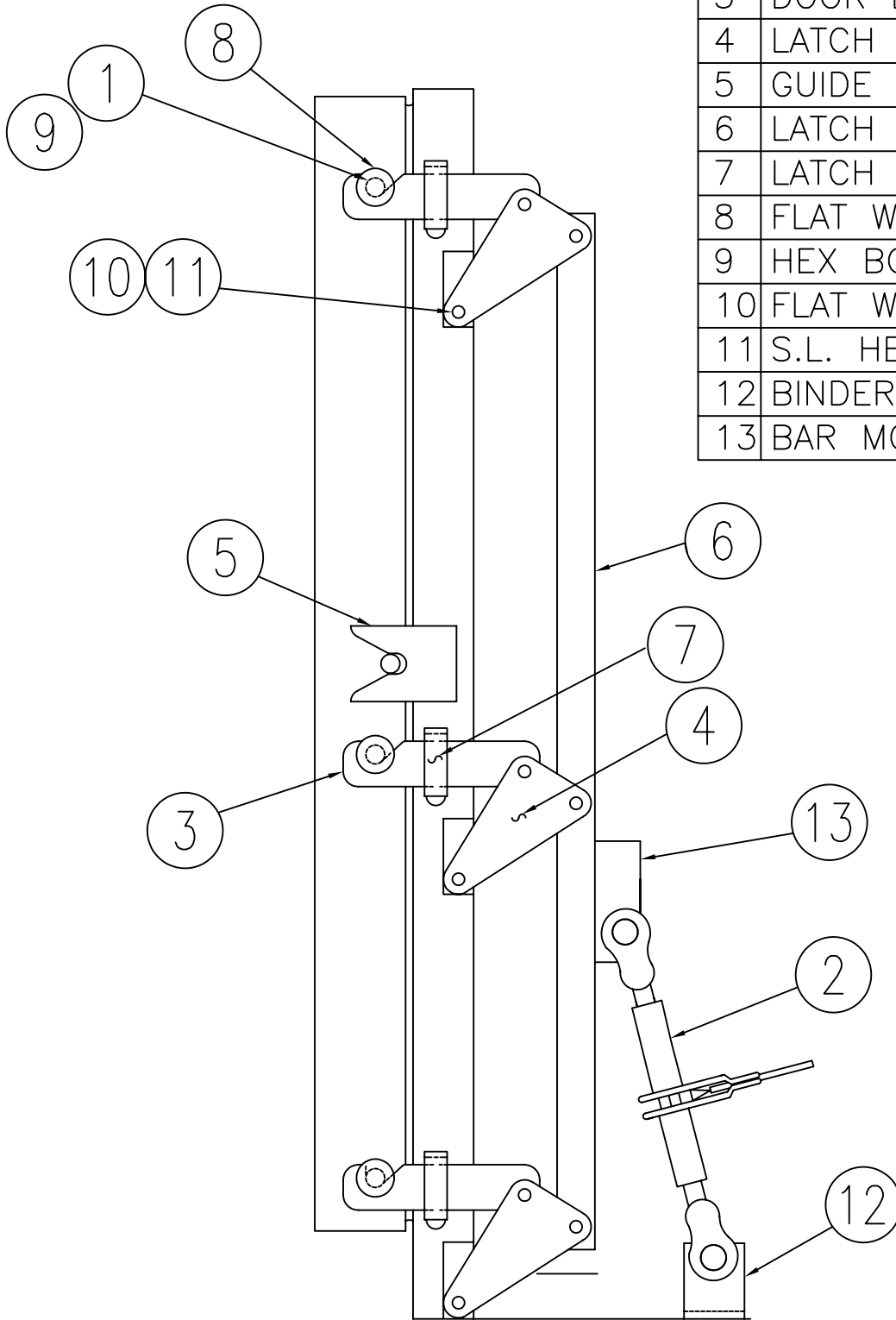


- SAFETY CHAIN PART NO. -- 500628
- HINGE ASSEMBLY PART NO. -- 401059
- DOOR SEAL PART NO. -- 500428
- GREASE FITTING PART NO. -- 320099

FULL DOOR SEAL IS STANDARD ON ALL SELFCONTAINED COMPACTORS

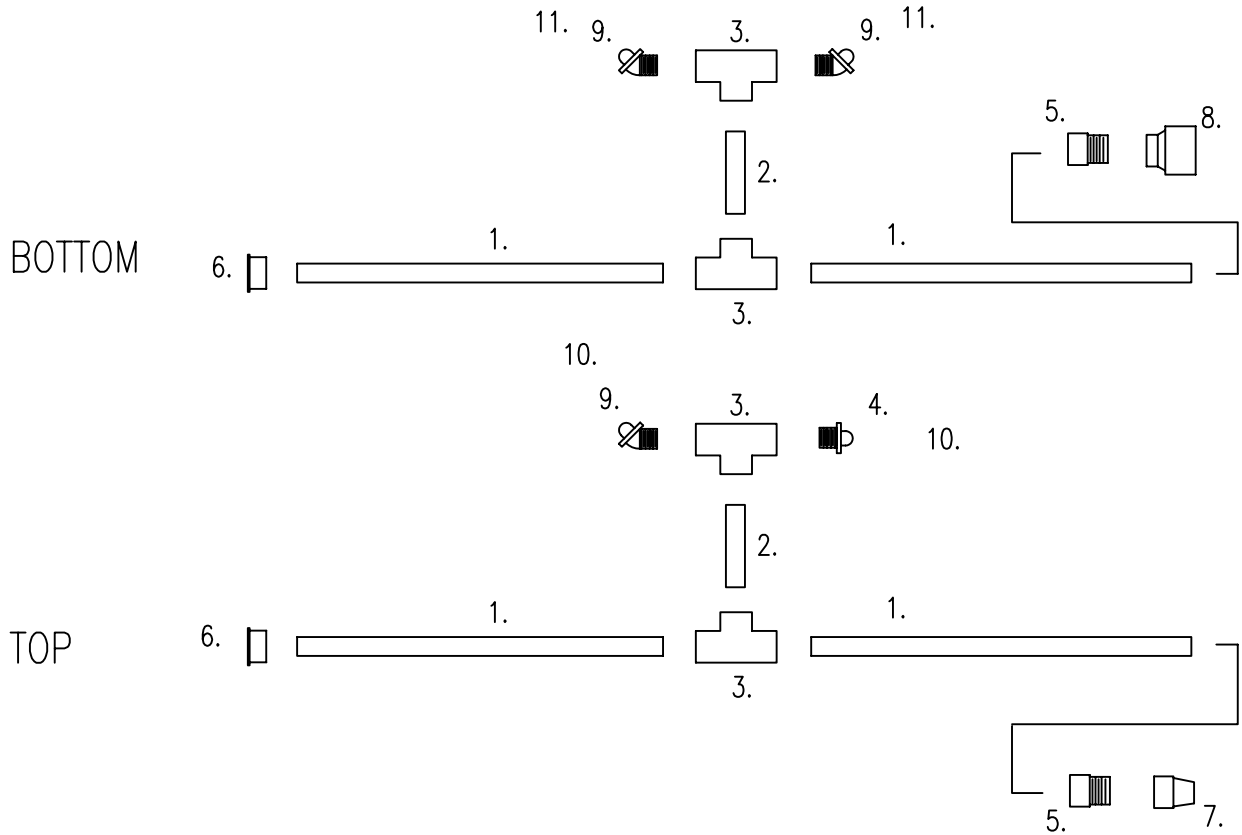
PTR BALER AND COMPACTOR CO.

| NO. | DESCRIPTION | PART NO. |
|-----|-----------------|-------------|
| 1 | DOOR PIN | 601406-5.5 |
| 2 | RATCHET BINDER | 500175 |
| 3 | DOOR LATCH | 400174 |
| 4 | LATCH MOUNT | 400173 |
| 5 | GUIDE PIN CATCH | 400172 |
| 6 | LATCH MOUNT BAR | 601333-77.5 |
| 7 | LATCH GUIDE | 400175 |
| 8 | FLAT WASHER | 500080 |
| 9 | HEX BOLT | 602255 |
| 10 | FLAT WASHER | 500080 |
| 11 | S.L. HEX NUT | 500166 |
| 12 | BINDER MOUNT | 601216-4 |
| 13 | BAR MOUNT | 601328-8 |



ASSEMBLY MAY BE PURCHASED AS PART NO. 400642

PTR BALER AND COMPACTOR CO.



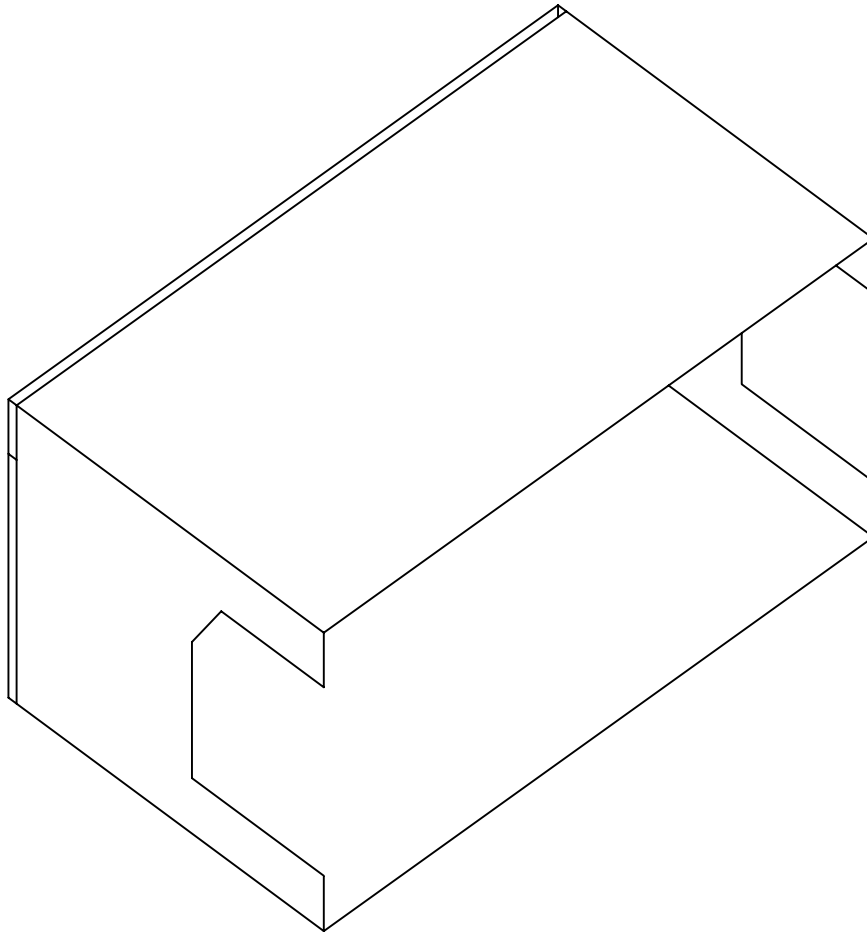
EXAMPLE ONLY

QUANTITIES AND CONFIGURATION WILL VARY

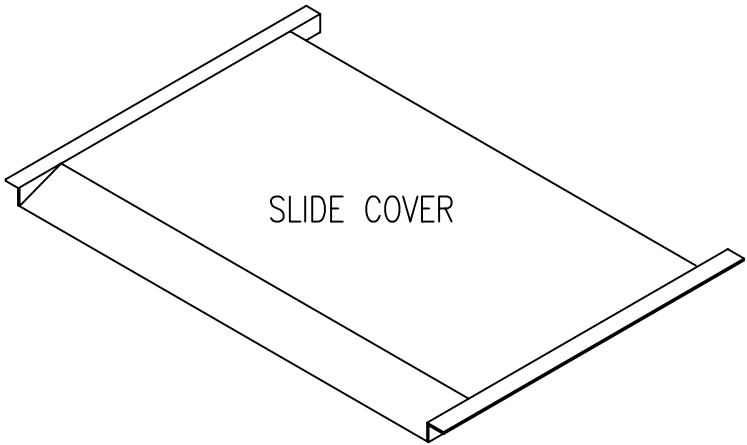
| | | | | | | |
|------------|-----|------|------------------------------|----------------------------------|-----------|----------|
| | 11 | REF | 32" LONG 1/2" HYDRAULIC HOSE | | | |
| | 10 | REF | 40" LONG 1/2" HYDRAULIC HOSE | | | |
| | 9 | 3 | ADAPTER | 1/2" JIC TO 1/2" MALE NPT - 45° | | |
| 500594 | 8 | 1 | DISCONNECT | 3/4" MALE DISCONNECT | | |
| 500595 | 7 | 1 | DISCONNECT | 3/4" FEMALE DISCONNECT | | |
| 500596 | 6 | 2 | NPT CAP | 1/2" NPT FEMALE CAP | | |
| 330733 | 5 | 2 | ADAPTOR | 1/2" NPT FEMALE TO 3/4" MALE NPT | | |
| 500275 | 4 | 1 | ADAPTOR | 1/2" JIC TO 1/2" MALE NPT | | |
| 500597 | 3 | 4 | NPT TEE | 1/2" NPT FEMALE TEE | | |
| 500600 | 2 | 3 | NPT PIPE | 1/2" NPT X 3" Lg., SCH 80 | | |
| 500826 | 1 | 4 | NPT PIPE | 1/2" NPT X 30 1/2" Lg. | | |
| MXP NUMBER | NO. | QTY. | DESCRIPTION | MATERIAL | RAW MAT'L | DWG. NO. |

MXP NUMBER = 400941

PTR BALER AND COMPACTOR CO.



1. 350 / 300 RAM BODY ----- 401796
2. 335 / 330 RAM BODY -----401721
3. 301 RAM BODY ----- 401082
4. 120/200/230/235 RAM BODY ---- 402050
5. RAM CYL. PIN -----500431
6. ROLL LOCK PIN -----500432



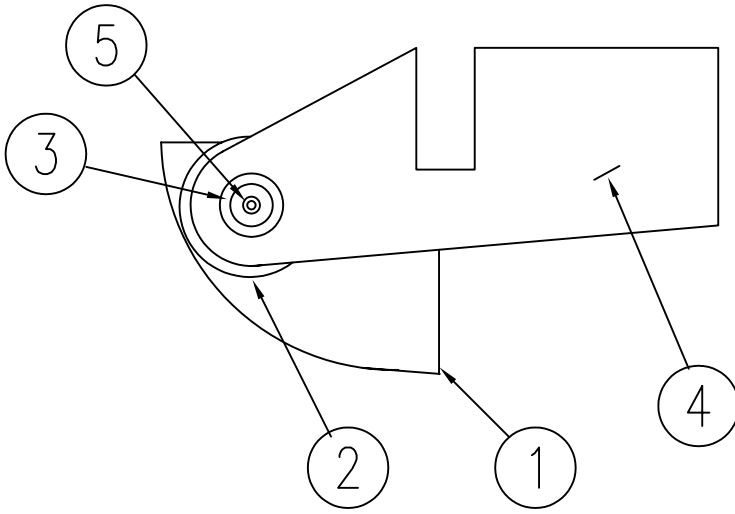
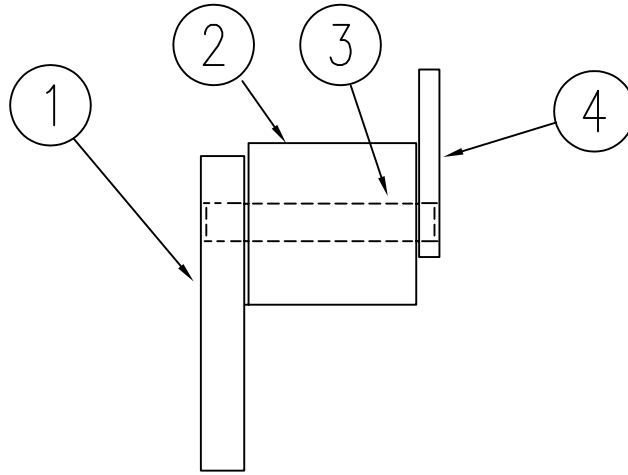
PT-300/330/335/350

500655

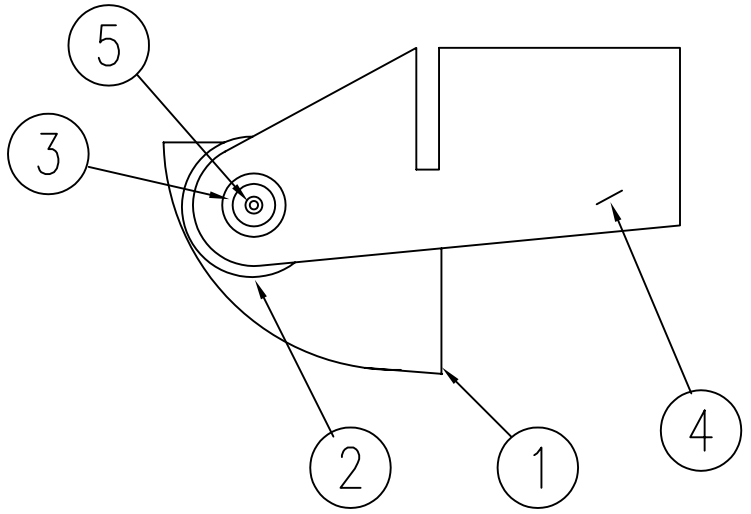
PT-100/120/150/200/225/230/235

401010

PTR BALER & COMPACTOR CO.



PRIOR TO 9/2003

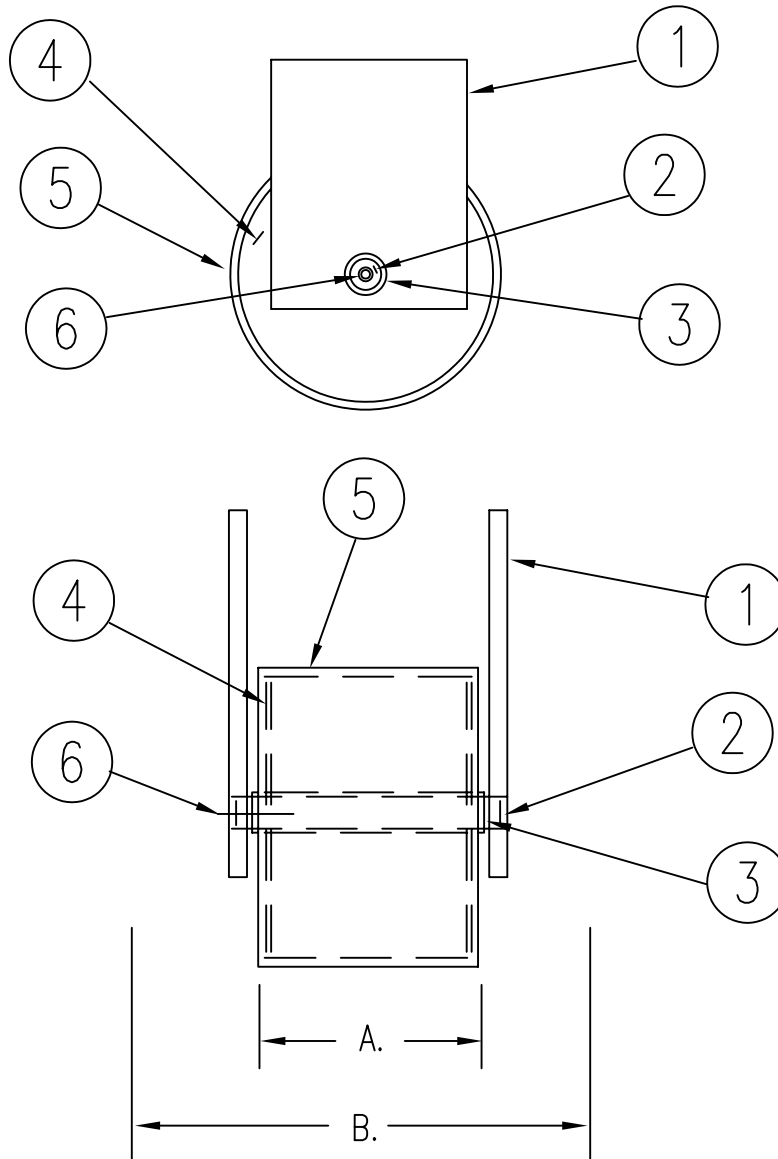


AFTER 9/2003

- | | | |
|-------------------|-------|--------|
| 1. BULLNOSE | ----- | 400137 |
| 2. ROLLER | ----- | 500206 |
| 3. AXLE | ----- | 500207 |
| 4. MOUNT | ----- | 500301 |
| 5. GREASE FITTING | ----- | 320099 |

AC400391C -PRIOR TO 9/2003 : AC4003914 -AFTER 9/2003

PTR BALER AND COMPACTOR CO.



A. = 4 1/2" WHEEL

WHEEL & AXLE ----- 400144-10

WHEEL ,AXLE & MOUNT ----- 400144-1

B. = 10" WHEEL

WHEEL & AXLE ----- 400144-20

WHEEL, AXLE & MOUNT ----- 400144-2

- | | |
|-----------------------------|----------|
| 1. MOUNT ----- | 500210 |
| 2. AXLE'S --- 4 1/2" ----- | 500211 |
| --- 10 1/2" --- | 500211-1 |
| 3. AXLE TUBE --- 4 1/2" --- | 500213 |
| --- 10 1/2" --- | 500213-1 |
| 4. HUB ----- 4 1/2" --- | 500215 |
| --- 10 1/2" --- | 500215-1 |
| 5. DRUM ----- 4 1/2" --- | 500216 |
| --- 10 1/2" --- | 500216-1 |
| 6. GREASE FITTING ----- | 320099 |